

TECHNOLOGY CLUB OF NEW YORK

# technology review

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# The Technology Review

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## TECHNOLOGY IN THE METROPOLIS

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The New Club-house of the Technology Club of New York  
Popular beyond Expectation—An Increase in Membership  
of Eighty-five per cent. in Four Months

The recently acquired club-house of the Technology Club of New York is a monument to the progressive spirit of the Institute. It stands for the new alumni interest, friendship and co-operation. It has demonstrated in the few short months of its history that its advantages need only to be stated to be availed of by Tech men. Its success should be an inspiration in forming alumni clubs and obtaining adequate club facilities.

For six years the Technology Club of New York existed with an inadequate club-house and a membership of from 200 to 300. Every year men joined merely because they were Tech men, and many resigned or forgot the club because it afforded little or nothing of value to them. Facilities were not obtained for want of membership; membership could not be increased for want of facilities. The duties of management fell upon a few men. The initial indebtedness was reduced, but never eliminated.

Finally, in the fall of 1908 the constitution was amended and the Governing Board increased from five to ten members. The proposition of a joint club-house for the Technology Club and alumni clubs of New England colleges

awakened general interest, and would have succeeded, had the alumni clubs other than Technology obtained the necessary subscriptions.

In the absence of such success and confronted by the termination of the lease of the old club-house, the Board of Governors sought new quarters, and found a most desirable house ready for occupancy, the expense of which was more than twice the existing income of the club. Believing, however, that the acquisition of the new house would result in increased membership and increased house accounts, and supported by the enthusiastic commendation of every member of the club who had seen the accommodations afforded by the new place, the Board unanimously resolved upon its acquisition, and, after negotiations which resulted in obtaining terms more advantageous than those originally offered, signed a lease for four years from May 1, 1909.

The house thus acquired, a four-story and basement sandstone building, shown in the accompanying photograph, is at 17 Gramercy Park, between the Columbia University Club and the Players' Club, two blocks north of the 18th Street subway station and one block east of Fourth Avenue. It has a frontage of 33 feet on Gramercy Park, and covers 75 feet of a 125 foot lot, thus assuring abundance of light and air. The house was formerly known as the Gerard mansion, and is now owned by the Gerard estate. Its spacious rooms were adapted for club purposes, and this, together with its attractive and convenient location, led to its being leased to William R. Hearst as headquarters for the Independence League Club in 1908.

It was thereupon altered and refitted to afford every club convenience. Ranges, grills, steam serving tables, and ice-chests were installed in the basement. On the first floor the large marble-tiled entrance hall was converted into an

office and a coat-room. The long double parlors became a reception-room and a main dining-room, as appears from the photograph. The original dining-room was altered into an attractive café; and what was probably a conservatory, overlooking the garden, into a smaller dining-room.

On the second floor, reached by an artistic winding stairway, the large front room, commanding a view of the Park, became a library, and an adjoining front room a writing-room. The rooms in the rear were changed into billiard, card, and board meeting rooms, and a suitable toilet was created. The rooms on the two upper floors were made into double and single bedrooms with running water and bath.

Electric light was provided, and the entire building was redecorated. The house was expensively furnished. Plush carpets were laid on the parquet floors and stairways, and the furnishings included comfortable leather-covered easy-chairs and lounges, oak dining-room tables and chairs, mahogany writing-desks and reading tables, a billiard and pool table, high leather-covered chairs for the billiard-room, brass beds and suitable furniture for the sleeping apartments. The board room even included desks and a typewriter.

In the spring of 1909 the Independence League Club no longer desired to occupy these splendid quarters, and the lessee wished to sublet the building and to sell the furnishings. The lease finally signed by the Board of Governors of the Technology Club provided not only for payment of the rental from May 1, 1909, but instalments for the furnishings, the same to become the property of the Technology Club at the expiration of the four-years' lease.

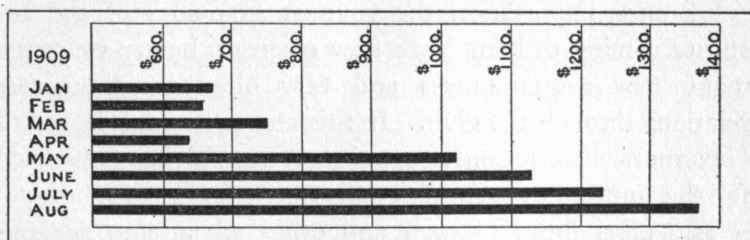
To these spacious and attractive rooms, previously dust-covered and silent, came on the evening of May 7 several hundred enthusiastic Tech men, crowding about Presi-

dent Maclaurin and Mr. I. W. Litchfield, greeting their words of congratulation and good wishes with resounding M. I. T. cheers. Sixty-five men thereupon joined the club, and a subscription of some \$3,000, to meet the anticipated expenses above income for the first year, was quickly pledged. At a subsequent meeting, when the house was again crowded, representatives of our neighboring clubs, Columbia, Princeton, Players' and National Arts, gave us a cordial welcome to Gramercy Park. The four months which have since passed testify that the anticipated interest and support of Tech men in New York are certain.

This interest and support are evidenced by the increase in membership from 264 on May 1, 1909, to 446 on Sept. 1, 1909, or 85 per cent. in four months. Even more gratifying is the fact, appearing from the club vouchers, that not less than 200 members, or nearly 50 per cent., were at the club-house during the month of August, showing that the club-house is a popular resort. The house accounts in August were \$1,378, which included \$830 for meals, 1,798 meals, an average of 58 a day, or about 20 luncheons and 40 dinners daily, excluding Sundays. The receipts from cigars were \$95, and the pool table netted \$40. The increase in house accounts since the opening of the new club-house, indicated on the accompanying diagram, strikingly attests the increasing success of the club, as its facilities become known. Thus the house accounts increased from \$640 in April, the last month in the old house, to \$1,020 in May, the first month in the new place, and to \$1,130 in June, \$1,230 in July and \$1,378 in August, an increase in four months of over 100 per cent. This is apart from room rental, which in August was \$450.

It has been no small task to keep pace with the increasing requirements, but the House Committee and the Registrar have been equal to the occasion. The force of employees

has been constantly increased; excellent meals have been served to all who came; the sleeping apartments, including those reserved for transient members, have been kept in use; economy has been observed, and members have soon received statements of amounts due. It was apparent that the greatest difficulty would be to have cash in hand for rental and supplies, but this was lessened by the increase in membership, and the Treasurer's request for prompt payment of accounts met ready response. The existing dues, inadequate for such a club-house, could not be increased within the year, but the Board's request in August for subscription payments of not less than \$5 from members re-



*Diagram showing increase in House Accounts*

cently graduated and \$10 from other members will result, as appears from amounts already received, in assuring the continuance and growth of the new enterprise.

The Board has proceeded to make further improvements needed in the house. Shower baths and additional toilets have been placed on the upper floors; the basement has been altered to provide sleeping-rooms for servants; and in the fall improved heating facilities will be installed. Pictures have been loaned by members, and more are expected. A special subscription list has been started to provide more magazines, and the subject of books for the library will receive attention.

Plans are now being made by the Entertainment Com-



mittee for a series of monthly smokers and entertainments, beginning October 2, which will from time to time include addresses on scientific subjects. On every day of the month members find, and will continue to find, congenial companionship at the new club-house. They bring their friends to luncheon or dinner, to be enjoyed in pleasant environment. Classes meet to renew memories and associations and continue good fellowship. Every evening men are in the reception-room, library, writing-rooms, and about the pool and card tables. Technology has advanced in New York city in the maintenance of a club-house on a par with those of leading colleges.

Of most importance, the younger graduates of the Institute coming to New York now receive a hearty welcome, make new acquaintances and very often form business relations through the club. In this connection the Board of Governors has recently appointed an Advisory Council for the purpose of securing employment for Tech men.

The possibilities of such and other advantages are unlimited, it being necessary only, in securing the best results in all the activities of the club, to increase both the resident and non-resident membership until all Tech men in New York and its vicinity and all who from time to time visit New York city are enrolled as members. This is being rapidly accomplished. Every new member brings others. The Membership Committee now numbers fifty-five men, among whom has been apportioned the duty of personally writing to non-members in the vicinity, and, if necessary, of personally interviewing them.

The time will soon come when no Tech man can say he has failed to join the club through want of information respecting its advantages nor for failure to receive a cordial invitation to share in the enjoyment of its comforts and benefits and in promoting, by united effort in every possible manner, the interests of the Institute.

WILLIAM H. KING, '94.

## INTERESTING FACTS ABOUT REGISTRATION

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Larger entering class than last year.—Eighty-nine Colleges and Technical Schools represented.

In the two informal counts made of the registration this year the number of students has exceeded that for the last four years. The official count is always made on the 1st of November. The number last year was 1,462 on that date; the number this year will be larger.

The number of students admitted to the Institute on the basis of their work at other colleges is the largest that it has ever been. The number last year was 170, while already 180 have been so admitted for the college year.

Among the colleges represented by these new students are:—  
 Acadia University, Alytilen (Turkey), Allegheny College, Armour Institute, Argentina National College, Arkansas, Bates, Brown, Boston College, Boston University, Bowdoin College Calcutta University, Case School of Applied Science, Chicago University, Columbia, Colorado, Cornell, De Pauw University, Dartmouth, Franklin and Marshal, National University of Greece, Georgia, Graceland, Haverford, Holy Cross, Harvard, Indiana, Imperial Japanese Naval College, Johns Hopkins, Lewis Institute, Lehigh, Leland Stanford, University of Minnesota, Massachusetts Agricultural College, Michigan, McGill, Middleboro, Maine, Military College of Mexico, Polytechnic School of Montreal, Maryland Agricultural, New York University, New Zealand, Nebraska, New Brunswick, Newbury College, College of the City of New York, University of Oregon, Ohio State University, University of Pennsylvania, Pennsylvania State, Princeton, Queen's University (Kingston), Rensselaer, Radcliffe, Rhode Island State, University of Rochester, St. Mary's, South Carolina, Syracuse, Smith, Sacred Heart, St. Louis, Stevens Institute, St. Xavier, Trinity, Tufts,

Throop Polytechnic, Texas Agricultural, United States Naval Academy, University of Virginia, Virginia Polytechnic, Virginia Military Institute, Worcester Polytechnic, University of Washington, William and Mary, Wisconsin, Western Reserve, Washington and Lee, Williams, Yale,—the largest number having come from Yale.

Among the five hundred students coming to the Institute this year many nationalities are represented. In the total student body thirty-two foreign countries have sent men to the Institute. The distribution of students by states will probably represent a wider spread than last year. The figures are not yet available. Last year in the total number of students there were representatives of forty-four states and two territories, besides the District of Columbia, Philippine Islands, Porto Rico, and the Canal Zone.

Some of the Tech men who have sons at the Institute are: David Baker, III., '85; George Bowers, I., '75; William W. Brewster, '70; Henry F. Bryant, I., '87; George H. Capen, '83; Richmond H. Cushing, '75; John R. Freeman, I., '76; Linus Faunce, II., '77; Roderick D. Hall, VI., '89; Edward B. Hayward, I., '84; N. G. Herreshoff, '70; William H. Kerr (deceased); Mrs. Kerr-Baer, VII., '86; Mrs. Margaret N. Otis, '82; Frank A. Smythe, I., '89; Francis H. Silsbee, II., '74; Thomas F. Stimpson, III., '77; Frank Tenney, III., '83; James P. Tolman, III., '68; B. Vonnegut, IV., '76 (deceased); George R. Wallace, I., '81. Thomas A. Edison and General A. W. Greeley have sons at the Institute in the first-year class.

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In the first part of the REVIEW, next to the table of contents, will be found the officers of the Alumni Association and committees, the list of class secretaries with addresses, the names of the Alumni Council, and a list of the alumni associations, with the addresses of the secretaries.

## THE PURIFICATION OF SEWAGE

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Interesting Results have been obtained at the Sanitary Research Laboratory in Co-operation with the United States Geological Survey.

The problem of purifying sewage so that it no longer transforms the rivers into which it is discharged into open sewers has been so far solved that these streams need no longer be disgusting to the senses and dangerous to the health of people living along them. The task of destroying the disease-breeding bacteria in the sewage and once more making the rivers available for drinking water has not yet been worked out on a practical basis, but investigations recently made by the United States Geological Survey in co-operation with the Sanitary Research Laboratory of the Massachusetts Institute of Technology and local authorities at Boston, at Baltimore, and at Red Bank, N.J., show that this end, too, may be attained at a reasonable cost.

A recent bulletin of the United States Geological Survey says that the essential agents of sewage purification are provided and employed by nature, and sewage purification as practised today is but the intensive application of these natural processes. The improvements that have been made have not involved the discovery or application of new principles, but have merely increased the working efficiency of the natural agencies. From the old-time sewage irrigation field, with its maximum capacity of possibly 10,000 gallons an acre in twenty-four hours, to the present-day trickling filter capable of dealing with 2,000,000 or 3,000,000 gallons an acre a day, improvement has been steady.

The old-time methods, however, really destroyed the polluting substances, while the modern sewage filter does not. The liquid flowing from these filters looks to the untrained eye like the original sewage. There is almost as much organic matter in it as in the raw sewage, and sometimes more. Its nature, however, has been



changed: the organic matter, though not burned up, has been charred or partly oxidized, and this charring has been sufficient to rob it of its foulness. In other words, its chemical composition has been so altered that it can no longer undergo rapid putrefaction and cause a nuisance.

The water, however, still needs filtration to make it fit to drink. Moreover, it may, and in many cases does, contaminate oyster beds, thus spreading disease and tending to ruin a great industry.

It has not yet been decided upon whom the responsibility rests for keeping the rivers clean, but the consensus of competent opinion requires that, if sewage is discharged within the region of important shellfish beds or into a stream which is used as a source of domestic water supply without filtration, such sewage shall at least be free from disease-breeding germs.

The Geological Survey experiments, which are set forth by Earle B. Phelps ('99), in Water-supply Paper 229, just issued, show that the application of a small amount of available chlorine in the form of bleaching powder to the customary "purified" sewage effects satisfactory disinfection. The removal of bacteria by this means averages over 95 per cent., making the removal for the whole purification process 98 to 99 per cent. of the number in the crude sewage. The cost of disinfection ranges from \$1 to \$1.50 per million gallons of sewage, depending chiefly on the size of the plant. Five parts per million of chlorine probably represents the maximum amount required for the treatment of trickling-filter effluents of poorer quality. The results obtained with the amounts of disinfectant specified do not, of course, amount to complete sterilization, but they may reasonably be called "practical disinfection." Considerable additional cost is required to improve them but slightly.

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At the commencement exercises in June the class statistician made the statement that the average cost of a Tech course for the student living at home is \$2,500 for the four years, and for a student living away from home about \$4,500.





TECHNOLOGY CLUB OF NEW YORK—RECEPTION ROOM AND DINING ROOM

NEW COURSE IN ELECTRO-CHEMISTRY

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A new course, known as Course XIV., has been established at the Institute to take the place of Course VIII., Option 3. The Course has been established to meet the demand for men properly trained in electro-chemistry, and is being developed by Professor Goodwin who is in charge.

The course was preceded by an option in physics, established in 1901, and the demand for graduates who had taken this option was so large that it was decided to make it a distinct course.

The profession of electro-chemistry is one of the youngest of the engineering professions, and it is developing on an enormous scale. The industries requiring specially educated men in these lines embrace those in which electrical energy is utilized either directly or indirectly as a source of power in affecting chemical changes and those in which chemical energy is transformed into electrical energy.

Cheap electrical power obtained from water power centres like Niagara Falls makes possible the manufacture of many substances which have, up to the last few years, been unknown or else manufactured only at great cost. The calcium carbide, aluminum, graphite, carborundum, and caustic soda industries are instances of the remarkable progress in electrical lines. The refining of metals as well as the reduction of ores, as shown by the rise of the electric furnace in obtaining high-grade steel, illustrates the application of electricity in chemistry.

Electro-chemistry is an experimental science, and involves a thorough knowledge of the principles of theoretical and applied electricity, of theoretical analytical and applied chemistry, and requires the ability to apply this knowledge to unsolved problems. Great emphasis is placed on the fundamental principles of physics and chemistry.

The course, however, is quite broad, and gives its graduates abundant opportunities, not only as electro-chemists, but also in engineering lines.

Professor Goodwin, who has charge of the course, was graduated from the Institute in 1890, and took his Ph.D. at Leipsic four years later. He has been connected with the Institute successively as Assistant, Instructor, Assistant Professor, Associate Professor, and Professor.

Dr. Goodwin is the author of "Precision of Measurements and Graphical Methods," "Physics Laboratory Experiments in Mechanics, Optics and Heat," "The Fundamental Laws of Electrolytic Conduction," as well as numerous papers on physical and chemical subjects.

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### Where the Students come from

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*Science* for October 1 contains Professor Tombo's annual study of the geographical distribution of the student body for 1908-09 at a number of universities and colleges. The comparison includes twenty-one universities, thirteen of them state universities, five colleges for men and three technological institutions,—Lehigh, Purdue and the M. I. T.

Fifty-seven per cent. of our students come from Massachusetts, the corresponding percentages for the colleges in this group tending downward. Of the eastern universities, Pennsylvania has sixty-eight per cent. of its students from its own state; Columbia, sixty-three; Cornell and Harvard, fifty-three; Yale, thirty-four; Princeton, twenty; Virginia, fifty-six; Johns Hopkins, forty-three. From New York state Williams receives 187; Amherst, 169; Dartmouth, 111; the Institute, 99. The Institute is exceptional among New England colleges in the proportion of students coming to it from the South Central states. Harvard's contingent from the North Central district has dropped from 526 to 502, and the Institute with 121 has been passed by Dartmouth with 127.

From foreign countries Pennsylvania has 225; Columbia, 166; Cornell, 157; Harvard, 147; California, 76; Wisconsin, 86; the Institute, 72; North-western, 71; Illinois, 62; Michigan, 69.

## PREPARING FOR THE GREAT CAMPAIGN

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Referring to the matter of a new site and new buildings, Dr. MacLaurin said at the reunion banquet: "I, for one, am perfectly definite that the thing to do first is to secure a new site, and on that new site raise a new Technology with all the good characteristics of the old Technology. . . .

"But the problem is not going to be solved by mere enthusiastic talk. It must be attacked in a practical way, with business-like organization. I ask you now to set yourselves at once to organizing your efforts and to seeing what can really be done. To me it would be unwarrantable liberty to ask you to give money, knowing, as I do, the sacrifices you have made in this direction. It is not so much money that I ask for. I know you will give that as far as you can. The problem presented to you is that of giving time, thought, and energy to the work of *interesting other people in this Institute.*"

Those who have come in contact with the new President know that he has set his face steadily toward the great end to be attained, and that he expects the hearty assistance of every Tech man. During the summer a great deal of preliminary work has been accomplished, and it is understood that a systematic campaign is being laid out by the President that will embrace the whole country. There is no Tech man who cannot be of some assistance in suggesting possible donors or reaching men of large means. President MacLaurin will welcome any suggestions bearing on this subject. The ball has just begun to roll.

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Remember that Field Day occurs at Tech Field, November 5. Take a Huntington Avenue car for Brookline and get off at Pond Street. The game begins at 2.30 o'clock. The Harvard-Tech cross country race finishes at the Field. There will be a number of class parties there this year; and, if you think of going, call up your class secretary and join the group.



NOMINEES FOR ALUMNI OFFICES

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As announced in our advertising pages, nominations for the various offices of the Alumni Association have been made by the Nominating Committee, and ballots will be sent out to the members of the association before November 20. Polls will close December 20.

The nominees for term members of the Corporation are: Edward Cunningham, '91; Cass Gilbert, '80; W. Spencer Hutchinson, '92; C. A. MacClure, '94; Hon. Frank W. Rollins, '81; J. Waldo Smith, '87; Edwin S. Webster, '88; Paul Winsor, '86. Members of the Alumni Association who have not been connected with the Institute as students for at least five years shall be entitled to vote for term members of the Corporation.

The nominations for officers of the association are: for president, A. F. Bemis, '93; for vice-president, Eben S. Stevens, '68; for secretary-treasurer, Walter Humphreys, '97; for executive committee, Walter E. Piper, '94; George W. Swett, '03; for representatives at large, Charles Hayden, '90; Franklin W. Hobbs, '89; Allan W. Rowe, '01; Stoughton Walker, '87; Professor George V. Wendell, '92; for advisory council on athletics, J. L. Batchelder, Jr., '90.

As provided for by the Constitution, additional nominations for any office or for election to the Corporation, signed by at least thirty members of the association entitled to vote for such nominees, shall be placed on the official ballot by the secretary if received by him before November 5.

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As indicating the trend of electrical engineering study at the present time, it is notable that forty per cent. of the students recently graduated from the electrical engineering course at the Institute already bore degrees of Bachelor of Arts or Science, conferred, as a rule, in classical or literary courses.



## NEW SANITARY RESEARCH LABORATORY

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A new sewage experiment station, larger and much better equipped than the old one at Albany Street, has been put in operation during the summer at Old Harbor Point in Dorchester. It includes three trickling beds, a sand filter, a Dibdin plate bed, a septic tank and a sedimentation tank. Sewage flows to the plant by gravity from the main deposit sewer of the South Metropolitan District. A. D. Fuller, '95, was contractor for the plant. One of the new trickling beds is equipped with the gravity distributor designed at the old station, a second is dosed with the Waterbury intermittent sprinkler nozzle and for the third an automatic traveling distributor of the Fiddian type has been ordered from Ham, Baker & Co., of London. A duplicate was made by this firm at the same time for experiments to be carried on by the city of Paris.

The Physiological Laboratory, Room 24 Pierce, has been partitioned off so that the east half forms a separate laboratory, which will be devoted to the analytical work of the Sanitary Research Station. Mr. G. T. Palmer, B.S. University of Rochester and M. I. T. '09, has been appointed Research Assistant, and will be in immediate charge of this work.

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### Professor Wickenden comes to the Institute

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W. E. Wickenden, a graduate of Dennison University and formerly of the electrical engineering staff of the University of Wisconsin, has been appointed Assistant Professor of Electrical Engineering at Technology, to succeed Professor George C. Shaad, who has gone to the University of Kansas to take charge of the

Electrical Engineering Department of that institution. Professor Wickenden taught for two years in the Rochester (N.Y.) Athenæum night school, returning to the study of physics as a graduate student at the University of Wisconsin, where he received a Master's degree. Since 1905 he has been on the instructing staff of the University of Wisconsin. Professor Wickenden has devoted considerable time to research work in physics, and is the author of a treatise of photometry and illumination.

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### Tech-Harvard Cross Country

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The annual cross-country contest between Harvard and Technology over the Technology course from Highland Station to Technology Field, Brookline, a distance of four and one-quarter miles, will take place on Field Day, November 5, finishing at Tech Field.

H. Jaques, the fast Harvard distance man, is now out of college, and Technology has an excellent chance to register another victory over the crimson.

Coach Kanaly is hopeful that the losses by graduation will be fully made up from the new material. During the last five years Tech has won three out of five events with Harvard.

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### Completing the Register of Former Students

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As the early records of the Institute are somewhat incomplete, the names of many former students do not appear in the Register of Former Students. The Register was pushed forward so rapidly in order to appear before the Reunion that many addresses had to be omitted, as there was not time to have them authenticated. The alumni office is now making a systematic effort to complete the record, and your co-operation in this work is earnestly desired.

## FINANCING ATHLETICS

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The management of Technology sports has been entirely reorganized during the summer on a basis of co-operation which, it is believed, will be a tremendous help to Institute sports. The Association treasurer will make all expenditures and receive all receipts from each of the various branches of athletics, whereas heretofore the manager of each team administered the finances of his department independently. In this way the non-paying sports will be supported by the more lucrative departments.

The Technology Athletic Association is made up of the captains and managers of the various teams and two representatives elected from each class. It is organized with a president and executive committee. Acting as an auxiliary body, the Alumni Advisory Council on Athletics is made up of the men who have been prominent in sports at the Institute and who are still much interested. Under the new organization the Association will issue combination tickets which will admit the bearer to all games during the year, including Field Day, the fall track meet, basket-ball games and tennis matches, and which gives the first choice of seats in the Technology section of the annual B. A. A. indoor meet.

A larger number of alumni turn out to witness the undergraduate sports each year. Their support just now, when the new scheme is being started, will be of great value to our athletic interests.

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## The Book about the Institute

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The book entitled "Concerning the Massachusetts Institute of Technology," published by the undergraduates, appeared in September. It is a cloth-bound book of 115 pages, descriptive of social and educational phases of Institute life, and is primarily published for

the use of freshmen and prospective students. The undergraduates who have successfully carried through this commendable enterprise have sent a copy to every man who took the entrance examinations and to every Institute student. Each of the instructing staff received a copy, and a large number was sent to preparatory schools throughout the country, the expense being borne entirely by subscriptions secured by the undergraduates and by returns from advertising. It has still a small deficit of less than \$50, and readers of the REVIEW who desire to help the enterprise, and at the same time get an up-to-date view of Institute life, should send one dollar to the president of the Institute Committee for one of these books.

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### Intercollegiates over Tech Course

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The intercollegiate cross-country championships will be run off over the Technology course at Brookline on Saturday morning, November 20. For the last three years the run has been held on the Princeton course. On the last occasion the Institute team ran second to Cornell, beating all the other colleges represented, but was entitled to no record because the Institute had not then been admitted to the Association.

The start will be from Technology Field, Brookline, and the finish will be at the same place, including a turn around the quarter-mile track at the Field. The run will be held not later than eleven o'clock, so as to allow the spectators to take in the Harvard-Yale football game at the Stadium in the afternoon.

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Don't forget that every man who reads this is expected to make some suggestion that will aid in securing the millions that we are to raise for Technology during the next three or four years.



## HONORARY DEGREES

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At the recent inauguration of Dr. Ernest Fox Nichols as President of Dartmouth College, the degree of Doctor of Science was conferred on President Richard Cockburn Maclaurin.

At the inauguration of Professor Lawrence Lowell, as President of Harvard University, the degree of Doctor of Science was conferred upon Arthur A. Noyes ('86), "chemist of renown, leader of research in physical chemistry, professor at the Massachusetts Institute of Technology, and recently its head, our neighbor, our fellow-laborer, and our friend." Dr. Noyes also received the degree of Doctor of Laws from Clark University in September.

Professor Percival Lowell also received the degree of Doctor of Laws from Clark University.

At the Yale commencement the degree of Doctor of Science was conferred upon Professor William T. Sedgwick, "splendid public servant."

On the occasion of the centenary of the birth of Charles Darwin in June, Cambridge University, England, conferred the degree of Doctor of Science on George Ellery Hale ('90).

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## The Demand for Tech Graduates

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The demand for Tech men has been so great this summer and fall that the heads of courses have been unable to find men to fill a number of good openings.

Professor Miller, of the Mechanical Engineering Department, is quoted as saying that of the sixty-one men receiving degrees as mechanical engineers last June each man had the choice of at



least two positions, and throughout the summer he has received several requests for men which he could not fill.

In the Mining Engineering Department the summer school had to be abandoned this year because the immediate demand for mining engineers early in the summer was so imperative.

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### A Student Employment Bureau

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Since Mr. Scharff ('09) became President's Assistant, he has reorganized the Technology Employment Bureau so that it has become of very practical assistance to students who find it necessary to earn money during their course at Technology.

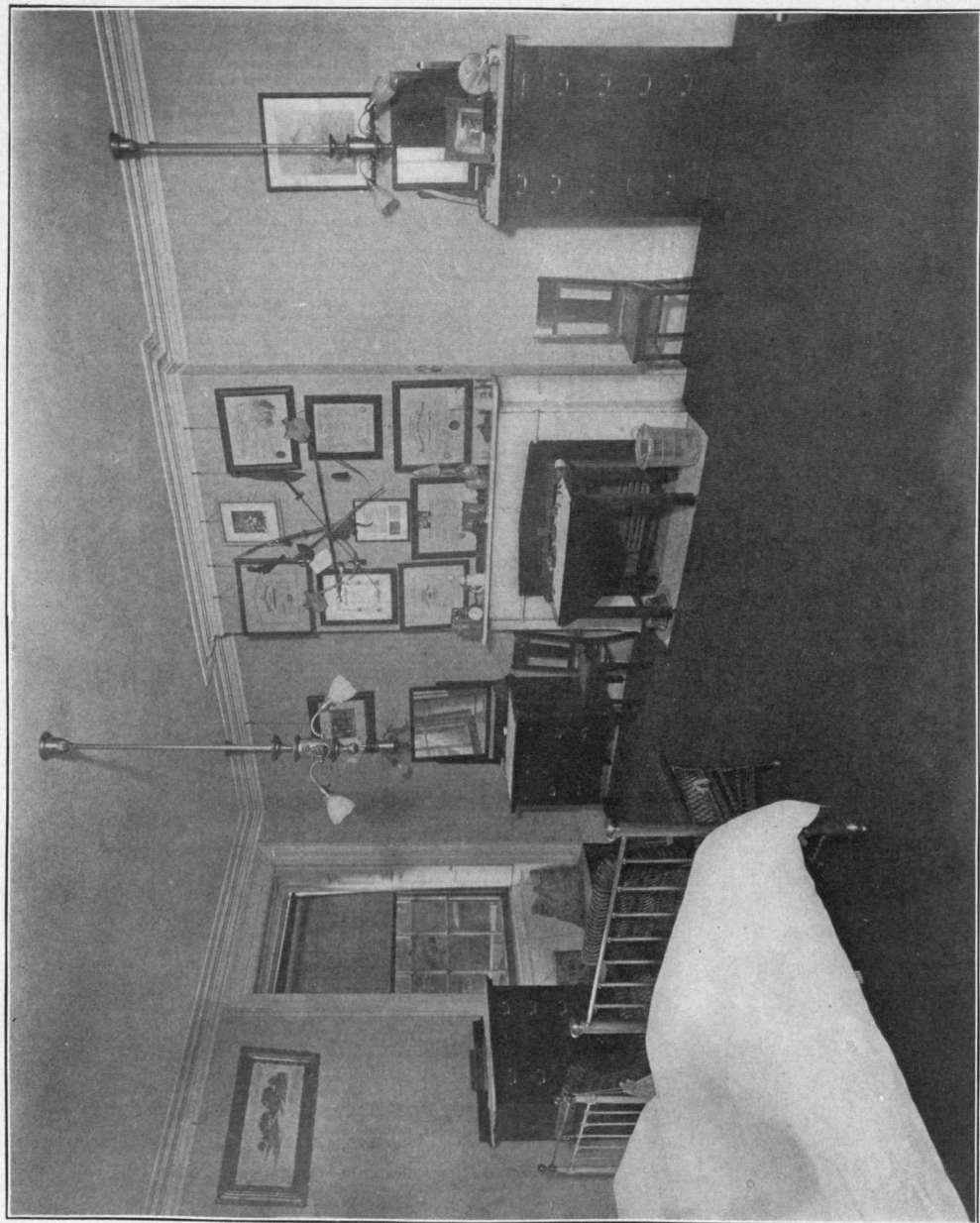
This year the bureau started with an original system of registration, based on a study of the experience of other college bureaus, and an assistant has been secured to canvass for employment, and work of all kinds is coming in rapidly. No charge is made for the services of the bureau, and employers often find it fully as useful as students.

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### The Glad Hand

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Although the advertising patronage of the REVIEW has increased very much during the past year, the expense of the large special editions in January and July and unusual expenditures to come make it desirable to largely increase the returns from this source. The advertising value of the magazine has grown with every issue, as the character of our patrons clearly indicates. The REVIEW has no paid advertising solicitors, and we hope that our interested alumni will tuck this matter in the corner of their minds, and see that their business is represented, if only in a modest way, in the columns of the REVIEW. The rates are given on the first advertising page.



TECHNOLOGY CLUB OF NEW YORK—ONE OF THE BED ROOMS

## GREAT INTEREST IN AËRONAUTICS

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Among the committees appointed by the Alumni Council at the May meeting was a committee on aëronautics, consisting of Henry Howard ('89), chairman, Butler Ames ('96) and Henry Morss ('93).

The committee has been actively engaged in studying the matter, and the bare statement that the Institute might give instruction along these lines has been given wide publicity by the newspapers of the country. There is, however, nothing very definite to be said at the present time. Mr. Morss, who has been making a trip around the world, has been investigating the course in aëronautics at the University of Paris and at technical schools in Germany and England. The possibility of establishing such an option has been received with enthusiasm, and many students have indicated their desire to enroll. On his return from abroad President Maclaurin stated that he believed Technology should lead in the study of aërial navigation in the United States, and, closely following this, the Department of Architecture announced to its graduate students that the first problems of the year would be devoted to designs for aërodromes and the like.

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### Pittsburg secures Professor Mott

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Professor William E. Mott, Associate Professor of Hydraulic Engineering at the Institute, has accepted a call to become the head of the Department of Civil Engineering in the School of Applied Science, Carnegie Technical Schools, Pittsburg, Pa., to take the place of Professor F. E. Foss, who has accepted a professorship at Cooper Union, New York. Professor Mott is a graduate of

the Institute in civil engineering with the Class of '89. Following his graduation he was engaged in surveying, and after three years of practical experience he was called to Cornell University where he became instructor and later assistant professor of hydraulic engineering. He then returned to the Institute as assistant professor of hydraulic engineering, which position he held at the time of his departure.

Professor Mott is a member of the American Society of Civil Engineers, the Franklin Institute, and the Sigma Chi and Theta Xi Societies. He was assistant engineer for water supply, barge canal survey, for the State of New York in 1900. He has been very active in alumni and class matters, and is at the present time secretary of the Class of '89.

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### The Daily "Tech"

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The first number of the daily *Tech* was issued at the opening of the school year, September 29, appearing at twelve o'clock instead of nine, as formerly. The undertaking is one of considerable proportions for the students to carry through, but the organization of the staff is such that a minimum of work falls on each man, and at times, when Institute work is most pressing, the editors are allowed relief of a week or a month, as may be necessary, under-studies being worked into their places. The subscription price remains at \$1.50 a year; the price per single issue is one cent. The paper is very creditable, although some improvements can well be made after the new organization has begun to run smoothly. An increasing number of alumni subscriptions is being received, and friends of the Institute who wish to keep posted in the new things that are going on every day cannot do better than send in their subscriptions. The *Tech* now has two offices, one above the other, at the Union.



## CHANGES DURING THE SUMMER

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The improvements made at the Institute during the summer have been very small, but all of them were very much needed.

The library of the Civil Engineering Department in Engineering A has been enlarged to double its former size. This was necessary because of the large number of volumes and periodicals which have been added to the Library in the last few years. The Civil Engineering library at Technology is considered the most complete of its kind in the country.

The Electrical Department has perhaps received the most attention. The most important recent additions are two motor generator sets of  $3\frac{1}{2}$  kilowatts each and a 500 kilowatt alternating current machine driven by the new turbine engine in Engineering B. About twelve thousand dollars has been spent on the mechanical and electrical departments for new apparatus.

A new electrical power plant has been installed in the mechanical laboratories on Garrison Street for lighting the shops and the gymnasium. A 25 kilowatt direct connected set developing 230 volts, with a balancer set using the three-wire system, will give the two buildings abundant illumination. This new plant completes the illuminating of the Technology buildings by local power, the larger buildings having been hitherto lighted from the electrical laboratory plant, but the isolated position of the shops and gymnasium cut them off.

Three hundred new steel lockers have been installed in the new locker-rooms at the gymnasium on Garrison Street. The new locker-room was erected this summer over the old locker-room.

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It is likely that arrangements will be made for an Alumni Song Fest at Huntington Hall some time during the winter, when the moving pictures of the stunts at Nantasket will be exhibited.

## LOCAL ASSOCIATIONS GETTING BUSY

Alumni Organizations preparing Attractive Programs for the Winter—The New York Club in a Strong Position—The Pittsburgh Association has a "Guarantor's Club."

THE TECHNOLOGY CLUB OF NEW YORK.—As this number of the REVIEW contains an article relating to our new club-house, the history of which since its opening in May constitutes our most important news item, little will be recorded here. An interesting club souvenir is a large framed photograph of the "Classes at Nahant, June, 1909," which now adorns the billiard-room. The smoker in honor of the Class of '09, originally planned for September 25, was held on October 15, as the Hudson-Fulton celebration and the illumination on the evening of September 25 claimed the attention of every one in New York. William Travers Jerome gave an address on "The Young Man in New York."

The smoker was well attended, and was the first of a series to be held on the second Saturday of every month during the year, excepting the first Saturday of February, which is the fixed date for our annual meeting and dinner. Heretofore invitations to the annual dinner have been extended to all Tech men in New York, but this year only members of the club and their guests will be admitted. Our membership is growing so rapidly, and the desirability of becoming a member is so evident, that we anticipate that this restriction will not relieve us from obtaining the largest banquet hall available to accommodate the number who will be present.

The sleeping apartments at the club-house are nearly all permanently rented, and a waiting list will be established. The demand for transient rooms has frequently exceeded the supply, but arrangements have been made for securing desirable rooms in the neighborhood. Attention is called to the new Advisory Council appointed by the board, and including R. H. Howes, W. B. Claffin

and J. Parker Fiske, for the advantage of men coming to New York. Its principal object is to secure employment for Tech men, and to the Advisory Council should be addressed communications of men desiring employment and of men wishing to secure the services of Tech men or knowing of positions available to them. The Class of '03 is so far the banner class in holding class reunions and dinners at the club-house. R. B. Price, '94, has the record among the new men for long-distance non-resident membership.—*William H. King, Secretary, 17 Gramercy Park, New York.*

WASHINGTON SOCIETY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.—The past summer has been the most active in the history of the society. The enthusiasm and good-fellowship at the reunion brought back by the score or so of members of the Washington society who attended served to keep the interest high at the weekly lunches throughout the early summer, while the return of men from vacation and the advent of new men to the city, both anxious to get in touch with things, has supplied sufficient variety and new material to keep it up since then. The annual summer outing of the society was held in June in the form of a moonlight boat-ride down the Potomac River. The affair was well attended, and enjoyed by all.

The program for the winter promises to be an exceptional one. Through the courtesy of the Washington Society of Engineers the monthly lectures before that society, usually of a nature of especial interest to the engineering profession, will be open to members of the Technology Society, and each will be preceded by an informal dinner at the University Club. The noonday lunches, which proved so successful during the summer, will be continued, and increased in number. At the annual dinner, held about mid-winter, it is hoped that some of the pictures taken at the reunion can be exhibited and explained by eye-witnesses to those who were not so fortunate as to be present. The Washington society has challenged the Philadelphia society to a Boston pin match, to be rolled on some neutral alley, probably Baltimore, though the details are not arranged, and this will be made the occasion for a general jollification for both winners and losers. In fine, the com-

ing winter promises to be the most successful in the history of the society.

The society wishes to call the attention of the alumni to its noon-day lunches, held down town once or twice a week. Not only in promoting fellowship among the members and in serving as a convenient rendezvous and headquarters of the society, but also as a place of entertainment for visitors, these lunches have shown their peculiar fitness. As Washington is the location of the national government, and particularly of the executive departments, with their large technical bureaus, Tech men are constantly coming and going, and the Washington society wishes to do what it can for such men to make their stay pleasant, if not memorable. To this end it invites any Tech man, student or professor, who chances to be in Washington, to call upon the secretary, and make himself known, or drop him a card, giving city address and time of expected visit, that notices of times and places of lunches and other gatherings may be sent during such stay.—*A. M. Holcombe, Secretary, 1325 Vermont Ave., Washington, D.C.*

**THE CINCINNATI M. I. T. CLUB.**—The Cincinnati M. I. T. Club had a most delightful day's outing in June at the Island Canoe Club on the Little Miami River near Cincinnati. About forty persons were present, including the ladies.

Mr. Hans F. Schaefer ('05), secretary of the Cincinnati M. I. T. Club, was married on September 13 to Miss Martha Coffin Wilby. Mr. and Mrs. Schaefer are spending their honeymoon in Europe.

**INLAND EMPIRE ASSOCIATION OF THE M. I. T.**—The association is planning for a fall meeting in the very near future, at which plans will be made for the winter campaign. Membership in Spokane is hardly large enough to warrant excursions, picnics or the like during the summer, but you may be assured that we shall make up in activity what we lack in numbers, and we will interest every man within striking distance of Spokane.—*Philip Kennedy, Secretary, 01129 Hamilton Street, Spokane, Wash.*

**THE NORTH-WESTERN ASSOCIATION OF THE M. I. T.**—A thoroughly enjoyable outdoor meeting of the association was held



at the Midlothian Country Club, about twenty miles south of Chicago, on September 10, through the courtesy of Mr. Fred W. Clark ('80). The Country Club was placed at the disposal of the Technology men for the entire day. A considerable number came out in the morning, played golf and had luncheon together, and a larger number arrived in the afternoon and became mixed up in a baseball game which was broken up partly because of darkness and partly because of personal feeling toward the umpire, Hagar ('93). At 7.30 in the evening a very enjoyable dinner was served in the main dining-room which was reserved for members of the association. Several of the men of the older classes were present, among whom were former Professor Dippold and former Librarian Clement Andrews. The weather was perfect, and the whole affair was successful and thoroughly enjoyed. Now that we have two members of the association on the Corporation of the Institute, Mr. Copeland and Mr. Robinson, and with the organization in a good healthy condition, we expect to make a long stride ahead during the coming winter. The tremendous success of the Reunion at Boston last June stirred up a greater interest than ever in the Institute. The officers of the association realize the importance of Chicago as a centre of Tech interest, and are already making plans to increase the usefulness of the association. One way in which our men can help is to influence the right kind of young men to attend the Institute. Our attention is called to the fact that among the undergraduates, in last year's catalogue, hailing from Chicago, there were only seven on the list, where a few years ago there was a very strong Chicago club at the Institute. There is no reason why Chicago should not have a very large representation at the Institute, and each member of the association should do his share toward seeing that this is accomplished.—*Ernest Woodyatt, Secretary, 1615 Ashland Block, Chicago, Ill.*

TECHNOLOGY CLUB OF SOUTHERN CALIFORNIA.—The club held a very delightful summer reunion on June 12. It took the form of a harbor excursion to the new harbor of San Pedro, and was personally conducted by Lieutenant Charles T. Leeds, U.S.A. (Tech '06). In the evening there was a banquet at the Naples

Hotel. The affair was a very jolly one. Tech songs were sung, and we did our best to make up for our enforced absence from the festivities in Boston which were in everybody's mind. Echoes of the Reunion have reached us from time to time during the summer, and will undoubtedly help to increase interest in Technology affairs on the coast. The club is planning to have a very active winter campaign and do its share to assist in the general movement to advance the interests of Technology.—*H. A. Prime, Secretary, Office of City Engineer, Los Angeles, Cal.*

THE TECHNOLOGY CLUB, BOSTON.—The club-house was a busy and popular place during the Reunion, but, as is always the case, was rather quiet during the summer months. With the opening of the school year the club's activities have been renewed, and there is every prospect of a successful season. The new president, Mr. William Lyman Underwood, has outlined an unusually attractive program of smoke talks. As arrangements are not fully completed, only a partial list of speakers can be given. The first evening of the season will be a talk by Mr. Seth K. Humphrey on "A Trip to Messina and French Africa." A later talk will be given by Mr. Ernest Harold Baynes, whose subject is not definitely announced, but will probably be "The American Bison," an illustrated account of its habits and haunts, its destruction and the steps being taken to prevent its becoming extinct. Professor William T. Sedgwick will speak some time during the early part of the season on a subject as yet undecided, and Professor Harrison W. Smith will give an account of his recent trip to the South Sea Islands. The list of speakers for the latter part of the season will probably be given in the next number of the REVIEW.

Professor Charles W. Wing, formerly of the Chemical Department, has recently presented the club with a very handsome silver claret jug once belonging to Daniel Webster. A suitable case is to be made for the jug, which is at present on exhibition in the Common Room.—*Robert S. Williams, Secretary, 83 Newbury Street, Boston.*

PITTSBURG ASSOCIATION OF MASS. INST. OF TECH.—As it is once more possible to receive an answer to a telephone call other

than "Mr. — has just gone on his vacation," and we have again settled down to our customary grind, for which Pittsburg is famous, our prospects for a lively Technology year are very encouraging.

Last spring we originated an idea which has resulted in clearing the books of a comparatively large banquet deficit and in giving us some "free" gatherings and feeds. This plan has worked so successfully that we feel justified in dwelling somewhat on matters pecuniary and letting in other clubs on our methods. We organized a Guarantors' Club, membership in which was solicited among our more prosperous constituents. By subscribing any amount above \$5, a member of the association becomes a guarantor of the association. Men of recent attendance at the Institute were utterly ignored in soliciting funds. Men with more monetary experience were invited to contribute according to their means, and we found it very seldom necessary to supplement the invitation with an appeal. There is now a balance on the satisfactory side of our ledger, and the amounts subscribed will give us a comfortable working capital. The proceeds from this fund are used in entertaining guests, providing a \$5 dinner for \$2.50, giving smokers without collections and taking care of other extraordinary expenses which the first-salary man might believe are not absolutely necessary.

Industrial activities in Pittsburg are fast regaining their normal conditions, and, if reports are not grossly unfounded, there will be more Tech men needed here than we had in 1907. The Westinghouse Company, from which we have drawn a large membership in the past, is again running on full time. The steel plants have more orders than can be filled.

We wish to take advantage of this opportunity to make a suggestion which occurred to us last winter. It appears that a majority of the alumni associations have their annual meetings in February. We have found it a fact that nothing we can do among ourselves engenders more interest in the organization and binds us more closely to Tech than to have a representative direct from the Institute visit us at least once a year and impart fresh enthusiasm. The Institute does not provide a fund for these journeys.

We would not ask the guest to provide himself with transportation, and the smaller organizations cannot separately afford the luxury. It would be a simple matter for a number of associations to combine their efforts and finances in this direction, and successfully entertain such a visitor at alumni centres along a predetermined route. The pleasure and benefits which we derived last winter by having with us at our annual dinner Dr. Maclaurin, Dr. Sedgwick and Mr. Litchfield have proven invaluable, and we trust that Washington, Chicago and Buffalo will second our motion for a repetition of the visit.—*Waldo Turner, Secretary-Treasurer, 1174 Frick Building Annex, Pittsburg, Pa.*

**TECHNOLOGY CLUB OF MILWAUKEE.**—Our activities will hardly begin before November. As so many of the men are out of town, it will not be feasible to do anything before that time. The plans for the coming winter have not yet been made up, but there will be something doing in Tech affairs in Milwaukee, and the annual dinner will not be least of the events. One of our plans is to interest a number of important local manufacturers who will meet with us from time to time, and talk on such subjects as may be most interesting and instructive. These evenings will not be conducted along stereotyped lines, and, instead of having one or two guests, we expect to have several, so that the affair will have little formality, and will be almost entirely social. There are but few '09 men located in Milwaukee, but we propose to get hold of them and increase our membership by taking in every one within reach of the city.—*Charles J. McIntosh, Secretary, 704 Lake Avenue, Racine, Wis.*

**THE DETROIT ALUMNI ASSOCIATION.**—We held our summer meeting September 11, nineteen men being present, as follows: C. Lang ('04), H. T. Winchester ('03), M. Gorham ('93), G. Whitney ('87), G. V. Pottle ('01), W. R. Kales ('92), H. T. Graber ('03), J. P. Buckley ('93), J. H. Dennedy ('08), W. R. Wood ('97), F. W. Fuger ('91), W. R. Strickland ('98), H. G. King ('75), J. S. Rogers ('91), F. C. Baldwin ('90), Hammond, Burroughs, Choate and Corse. Although not as largely attended as our other two meetings, it was a highly exciting and enthusiastic one, and six new faces were



seen. We took lunch at the Detroit Boat Club, and then left on the launch for the Light-house Inn. As there were just men enough to furnish two baseball nines and an umpire, a game was organized between teams captained by Gorham and Kales, in which Gorham's team was victorious. The relay race was won by Gorham's team. It was also decided that the broad jump should be awarded to the invincible Gorhams, although the judges received a few bricks by way of mild criticism from the other side. Then Winchester walked around with a big rock on his shoulder, so we put the shot and Burroughs won. The dinner that evening was a memorable one, and afterward we sang Tech songs, talked about the Reunion and the Detroit Association. Although this is one of the youngest associations on the list, we propose that it shall be heard from frequently and favorably in the future. Our winter meeting will probably be held February 22 at the University Club. We have received a copy of "Concerning the Massachusetts Institute of Technology," and we will see that the principal of the high school has an opportunity to read it. You may be interested to know that the Technology members of the University Club have presented the club with some library chairs for their new club-house. Gorham is one of the Board of Governors of the club, and Whitney is on the Library Committee.—*Granger Whitney, Secretary, Detroit, Mich.*

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### New Head of Military Instruction

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Major Fred Wheeler, who has held the post of professor of military tactics at the Institute, has been forced to resign because of ill-health, due to serious wounds contracted during service in the Philippine War.

His successor will be Captain A. T. Easton, U.S.A., retired. Captain Easton is a native of Pennsylvania. He was captain in the 14th Pennsylvania Infantry until 1899, when he was appointed first lieutenant of volunteers. He became first lieutenant of the 29th Infantry in 1901. He is forty-one years old.

TECH MEN IN THE PUBLIC EYE

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EDWARD D. ADAMS ('65-66), has recently been presented with the Crown Order of the Second Class by Emperor William of Germany, in recognition of his efficient services as representative of the Bank of Germany in America. Mr. Adams was born in Boston, and prepared for college at Norwich University, Vermont. He attended the Institute for two years, after which he travelled extensively in Europe. On his return he went into the banking business, and was identified with the management and re-organization of several railways. In 1878 he became a member of the banking firm of Winslow, Lanier & Co., of New York, from which he resigned in 1893 to become the representative of the Bank of Germany. His address is 71 Broadway, New York city. Mr. Adams is a member of numerous scientific societies and is a director of the Metropolitan Museum of Art.

KING Y. KWONG ('80-81), has had a very successful career in China, where he has been an influential factor in the greater development of railway transportation. As chief engineer of the Canton-Hankow Railway, his accomplishment has been so remarkable that he has attracted much notice from the American and English press. Mr. Kwong was educated in America, first at Williston Seminary and then at the Massachusetts Institute of Technology. He returned to China in 1881, and went into railroad work with Mr. C. W. Kinder, engineer-in-chief of the Imperial Chinese railways. These were the pioneer days of railroads in China, and it is interesting to know that Mr. Kwong drove the first spike on the Imperial line in China. He was connected with several railways in the north of China, and came to Canton to take charge of the southern section of the big trunk line to Hankow in 1907. The record Mr Kwong has made is a distinct credit to the land of his education. His scientific and progressive spirit has overcome many of the obstacles with which his predecessors were

almost overwhelmingly hampered, and it is largely due to his persistence and tact that the new era of railroad development in China has been made possible.

SAMUEL M. FELTON ('73), president of the Mexican Central Railroad, is to head the re-organization of the Chicago Great Western Railway. Mr. Felton was formerly president of the Chicago & Alton Railway.

MAJOR-GENERAL JOHN F. WESTON ('81-84), now stationed at San Francisco, has been a unique figure in the military history of the time. Those of our readers who knew Weston will be interested in some extracts from a recent article on his career in the *National Magazine*:—

General Weston is one of the most widely known and popular officers in the United States Army, and his friends are legion, both in military and civil circles. He is among the few remaining examples of the "old army," and is perhaps the only officer of distinction now in active service who links the memories of the Civil War with the military spirit of a later generation. . . . While a mere youth, he participated in many of the great battles of the Rebellion,—from 1861 to the tragic close at Appomattox,—and over thirty years afterwards, as a grizzled veteran, was engaged in the Spanish-American War. In the interval between the two struggles he took part in many of the Indian wars and outbreaks that marked that troubled period. . . . When the Civil War broke out, though only a boy of sixteen, he eagerly enlisted in the Fourth Kentucky Cavalry as a private. Wherever this renowned regiment went, it was always in the forefront of the fight. During Sherman's march to the sea the Kentucky brigades of cavalry were always at the head of the column, and had many a hard-contested battle with Wheeler and Forrest. He participated in the action at Lebanon, Tenn., where he had a horse shot from under him, but mounted another and continued the pursuit of General Morgan's command. He was in the Perryville campaign, and subsequently in the battles and campaigns of Laverne, Brentwood, Spring Hill, Franklin, Triune, Shelbyville, Chickamauga, Caperton's Landing, Atlanta campaign, and Resaca, where he was complimented for gallantry on the field. . . . He was in the Nashville campaign, Centreville, Montgomery, and Wetumpka, and was awarded a medal of honor for clever and daring conduct at the latter place. It was while in command of a battalion ordered to destroy steamboats loaded with supplies for the enemy that he was stopped by an unfordable river, but with five of his men he swam the

river, captured two leaky canoes and ferried his men across, encountered and defeated a force of the enemy, and on reaching Wetumpka found the boats anchored in midstream. He lured the captain ashore, and with the boat thus secured reached the steamers and demanded and received their surrender. . . . Lieutenant Weston was in the campaign against the Cheyennes in the Indian Territory under Sheridan, whom he admired immensely and considered the greatest cavalry commander the world ever saw, not even excepting Murat. . . . Before the completion of the railroads to the Pacific, multitudes of immigrants and trains had to be guarded across the plains where the Cheyennes and Comanches were tomahawking and murdering the travellers in great numbers. The torch and scalping knife were in evidence everywhere. It was on this strenuous and dangerous duty that Lieutenant Weston was engaged, and in which he had many close calls. . . . He was in the Big Horn fight in Montana, was in the Yellowstone expedition, and was complimented personally and officially by Custer for services in the relief of that ill-starred commander. It was in the spring of 1873 when he went with Custer's expedition to guard the surveyors on the Northern Pacific Railroad west of the Missouri River. The details of that expedition have been told and retold. There was the time when Custer, out in advance of the rest of the expedition, came near being surprised by the Indians. Surrounded by the hostiles, and with his men in blue being picked off one by one by the circling, hideously painted redskins, he saw galloping to his relief and saving him from massacre a straggling troop of cavalymen, at whose head rode a sturdy figure, with a sabre wildly waving over his head and a big Colt gun barking savagely at the Indians. Custer could not but admire that coming figure, and, turning to an officer near him, said, "I'll bet ten to one that is Weston and his troop in the lead." But the general found no takers, for all believed that, if any one came through that horde of encircling savages, it would be "Daredevil" Jack Weston.

MATHEW C. BRUSH ('01), recently manager of the Boston Suburban Electric Company, has been appointed general manager of the Buffalo & Lake Erie Railway Traction Company and Jamestown, Chautauqua & Lake Erie Railway, and their subsidiary railway and water lines, with headquarters at Buffalo. Mr. Brush is only thirty-five years old, and is one of the best-known street railwaymen in the East. He was graduated from the Institute in 1901, and after a short experience in the West he became connected with the Boston Suburban and Electric Company as assistant to the



president, soon arriving at the post of general manager. The companies of which he will have charge operate 200 miles of private right of way electric lines, 50 miles of steam road and a fleet of steamboats on Lake Chautauqua.

FREDERICK L. BISHOP ('98), formerly professor of physics at the Bradley Polytechnic Institute of Peoria, Ill., has been appointed to the chair of physics in the college of the University of Pittsburg. Dr. Bishop received the degree of Bachelor of Science from the Massachusetts Institute of Technology, and was afterward graduate student in physics in the University of Chicago, where he received the degree of Doctor of Philosophy. For the past ten years he has been head of the Department of Physics at the Bradley Polytechnic Institute, Peoria, Ill., an affiliated department of the University of Chicago. Dr. Bishop was a student of Dr. A. A. Michelson, head of the Department of Physics, who received the Nobel prize of \$40,000, in 1907, for his discoveries on the nature of light waves. Dr. Bishop has published a number of articles in the *Proceedings of the American Academy of Arts and Sciences*, *American Chemical Journal* and the *Physical Review*, and also received a grant from the Rumford Fund with which to carry on researches in thermal conductivity.

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### A Host of New Associate Members

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That the advances recently made by the Alumni Association are appreciated among former students is shown by the startling array of associate members that have been taken in during the past year. The list is published elsewhere in this issue. Because of such spontaneous support as this and the tremendously increased interest of alumni associations all over the country, the alumni organization is unusually well equipped to do effective work. It is perhaps in as strong a position as any college alumni association in the country, and the requests for associate membership now pouring in makes the outlook for the future most encouraging.

AMONG THE UNDERGRADUATES

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## A Large and Enthusiastic Class of Freshmen—Great Promise of Undergraduate Activities this Season—Field Day November 5.

The undergraduate year starts out with unusual promise because of the large and apparently enthusiastic class which has just entered and also because of the advances which were made in all departments last year.

President Maclaurin addressed the freshmen at the opening of the term. Among other things he said:—

“Tech is essentially a workshop with eminent men over it who know what the world demands. I hope you will take the full advantage of the knowledge of your instructors. In preparatory schools there is a tendency to consider the instructor as a natural enemy where attempts to thwart and fool him are considered legitimate. This should cease to exist. A certain measure of trust is essential in all walks of life, especially in those being educated. You will find included in the curriculum a large number of studies which have no direct bearing on your professional work, such as language, history and economics. Many may think these useless, but the man who is wise will keep these views to himself and bow to the superior knowledge of men of the world. Above all, I want you to be intelligent men who can take an active part in the problems going on around you.”

Never has a freshman class received more attention from upper class men than 1913. The reception by the Young Men's Christian Association and the dinner to freshmen given by *The Tech* had a much larger attendance than ever before, and the freshmen show unusually good spirit.

All undergraduate activities are moving along satisfactorily.

The Show management is in excellent hands as is also the *Technique*. The expanding of *The Tech* into a daily is a long step in advance, and will be of great help to all undergraduate interests.

Perhaps nothing was ever attempted by the students that has attracted such universal commendation as the book "Concerning the Massachusetts Institute of Technology." Undergraduates and Faculty are loud in their praise of this book, and the best of it is that it is fully deserved.

Announcement was made recently that James R. Francis, who has so successfully coached the last five Tech Shows, has been again engaged for next year.

There seems to be much greater interest in musical clubs this year than ever has been exhibited at Technology. The manager is fully alive to the possibilities, and is attempting to make arrangements for a tour of the West with the Glee and Mandolin Clubs. The success of the venture will of course depend largely upon standing of the clubs. From all appearances, however, musical talent is far in excess of anything seen here before.

During the first few days of the term there is always some small clash between the freshmen and sophomores. It is customary, after the dinner given to the new class by *The Tech*, to march to Rogers steps and cheer. This year some twenty-five or fifty sophomores tried to hold the steps, but those who were captured were quickly hustled to the Public Garden and received a ducking. It was all given and taken in good spirit, although, of course, the newspapers made as much out of it as possible. Other than this the relations of the two classes have been friendly. The real struggle between the two classes occurs on Field Day, November 5, when all differences will be settled. Last year the freshmen won the event, but the activity of the sophomores this year indicates that if the freshmen win it, they will have to put forth extraordinary efforts.

The Institute committee has begun its meetings, and has appointed members of the Union committee, including the house committee, entertainment committee, and dining-room committee. The responsibility of running the dining-room this year is placed in the hands of Maurice Scharff ('09), president's assistant, who works in co-operation with the regular dining-room committee. A radical

change has been the installation of a complete bakery, with model electric ovens in charge of an experienced baker and pastry cook.

The Friday night entertainments of the Union begun the last of October.

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### A Wireless Station Probable

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The formation of a Wireless Society last year developed the fact that a large number of undergraduates were interested amateurs. Last year one of the members installed a complete wireless station in his fraternity house on Newbury Street with a sending radius of sixty miles and a receiving capacity of eight hundred miles.

This year the society is very much stronger, and Professor Cross and Dean Burton have extended friendly hands. Announcement is made that the society will soon be able to erect a powerful wireless plant at the Institute. The object of the society is to interest the students and Faculty in the advancement of wireless telegraphy, and for suppressing amateur interference with government and other messages. The co-operation of the government officials has been secured, and the authorities at the Charlestown Navy Yard say that amateur interference has fallen off fifty per cent. during the summer, due to the efforts of the society.

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### Who Lost This ?

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July last a watch chain and fob was found on Riverside Drive, New York. Attached to the chain was a seal marked with two initials. The chain evidently belongs to a Tech man, as one of the reunion medals was attached to it. Will the person who lost it please communicate with THE TECHNOLOGY REVIEW, indicating the initials on the seal by way of identification ?



NEWS FROM THE DEPARTMENTS

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## Many New Members of Instructing Staff—Practical Work of the Mechanical Engineering Department—A New Departure in the Study of English

DEPARTMENT OF MECHANICAL ENGINEERING.—Of the twenty-seven theses performed during the last school year by the forty-six members of the graduating class in Mechanical Engineering, ten had for their object an industrial problem that had actually arisen in the business of some firm, and in most of these cases the firm itself furnished, at its own expense, most of the material used, or gave facilities and set up apparatus for making the tests. Six were intended to solve industrial problems of general interest in engineering practice, while eight were concerned with some stage of an investigation which, when completed, would serve to solve important industrial problems. The remaining three were upon questions of less general interest, though having an industrial bearing. Among those of the first class may be mentioned:—

(a) Lift and discharge of safety-valves, a question regarding which there exists much difference of opinion among manufacturers and users.

(b) Tests of reinforced concrete beams of unusual depth, for the purpose of securing evidence concerning a difference of opinion between different engineers regarding the proper method of erecting certain important constructions of the present day.

(c) Service test of the steamer "Harvard," for power, speed and economy.

(d) Test of a 750 kw. Allis-Chalmers Parsons turbine, this being a case where the results were of importance to the firm using the turbine.

(e) Investigation of the behavior of locomotive driving springs under repeated stress, this being one phase of the problem regarding

the difficulties experienced by railroads and locomotive works because of the breakage of springs. Moreover, three firms have furnished materials and facilities to aid us in this investigation.

Of the second class may be mentioned:—

(a) An investigation of the effect of water vapor in the explosive mixture of an oil engine.

(b) Investigation of the ideal marine engine for horse power and fuel consumption at various speeds.

Of the third class may be mentioned:—

(a) Investigation of the vibrations of an inertia governor.

(b) Investigations of running balance.

(c) Investigations of the whirling of shafts.

The five hundred kw. steam turbine was used during the second term of the last school year, for the regular laboratory work, and some lines of investigation were commenced. A five hundred kw. 60 cycle 2,300 volt generator is now being substituted for the water brake with which the turbine was originally equipped.

Investigations of outside steam turbines have been the rule for many years, and also that of many questions important for the problem of the steam turbine, one of the most important being the study of the steam and friction losses in nozzles, carried on during the last school year by Mr. Sampson, an advanced student.

A twelve horse-power Gray gasoline engine has been presented to the Institute by the makers.

Instructor Heuter has gone to Germany to study for two years.

Professor Peabody published, during the year, a revision of his steam and entropy tables, bringing them up to date with the latest investigations upon the properties of saturated and superheated steam.

Professor Lanza was elected a member of the Phi Beta Kappa Society (Beta of Virginia Chapter, located at the University of Virginia).

DEPARTMENT OF CHEMISTRY AND CHEMICAL ENGINEERING.—  
The year opens with a considerable number of new junior members of the instructing staff. Dr. P. S. Burns has resigned his position as Instructor in Inorganic Chemistry after a long period of service,

during which he has made many firm friends, who will wish him success in his technical work to which he is now devoting himself. His place is filled by Dr. Stroud Jordan, who is a graduate of the University of North Carolina, receiving also the degree of M.S. and later Ph.D. from the same university. He has also served as assistant at the University of North Carolina, as Professor of Chemistry and Physics at Gordon College and as Carnegie Research Assistant, under Dr. Charles Baskerville, at Chapel Hill, N.C., and in New York.

Mr. F. R. Kneeland has transferred his allegiance from analytical to organic chemistry, and has as his Assistant Mr. H. W. Paine (X. '09), who takes the position held last year by Mr. H. S. Chandler, who is just entering a technical position. Mr. Charles Field, 3d, who has been Instructor in Organic Chemistry, has resigned, and accepted an instructorship at the University of Idaho.

The other Assistants who have resigned to take up technical work are: A. B. Babcock, C. W. Clarke, C. H. Criswell, A. T. Hinckley, O. L. Peabody, W. H. Toppan and R. W. G. Wint. Mr. C. B. Nickerson has accepted an instructorship in Dalhousie University, Mr. P. S. Fiske has gone to Germany for study, having been awarded a fellowship from the Institute, and Mr. R. C. Tolman is devoting his time to research work in the Research Laboratory of Physical Chemistry. Mr. Tolman's position as instructor is filled by Dr. F. H. Heath, who is a graduate of New Hampshire College, and received his doctorate from Yale last June.

The new Assistants are as follows: B. H. St. John (V. '09), Theoretical Chemistry; J. J. Elbert (X. '09), Industrial Chemistry; H. P. Gurney (X. '08), Carl W. Gram (X. '09), J. A. Christie (V. '09), and C. L. Campbell (X. '09), Analytical Chemistry; L. J. D. Healy (V. '09) and E. L. Connolly (V. '09), Inorganic Chemistry; E. L. P. Treuthardt (V. '09), Food Analysis; R. W. Gilbert (XI. '09), Air and Water Analysis; and J. R. Nichols (V. '08), Technical Analysis. Miss E. B. Babcock (V. '09) is private assistant and secretary to Professor Talbot.

Professor F. H. Thorp is at present ill and confined to his house, to the great regret of his colleagues and friends. He reported

having spent a pleasant vacation at his summer home in Vermont, but was taken ill soon after his return to Boston. Dr. Walker is at present carrying on the course of lectures in Industrial Chemistry, and Dr. Fay is taking charge of the laboratory instruction in Analytical Chemistry which has been under Dr. Thorp's care. It may be some weeks before Dr. Thorp is able to resume his duties.

Professor Noyes spent the summer in Spain, France and Germany, visiting friends in Leipsic, among other cities. Professor Talbot also spent a pleasant summer in England, Germany and France. He was present at the Five Hundredth Anniversary of the founding of the University of Leipsic, and attended several of the interesting ceremonies connected with that unusual occasion. Professor Walker's summer was a busy one in connection with his private practice and the Research Laboratory of Applied Chemistry, but he found opportunity to spend some time at his new summer home in Maine.

Professor Fay had special cause for rejoicing this summer in the advent of a daughter. His summer was divided between Cape Cod, Altoona, Pa., and Boston, and was in part devoted to expert work in chemical lines. Professor Gill reports a quiet and busy summer at his home in Randolph, N.H. His promotion to a full professorship coincided with the twenty-fifth anniversary of his graduation, and permitted a double celebration on his part. Drs. Sherrill, Moore and Pope have returned from the seashore with excellent coats of tan, which speak well for their enjoyment and health.

Mrs. Richards has spent a characteristically active summer, travelling to North Carolina, and then to the Pacific Coast, everywhere welcomed by a host of friends, and always in demand for talks and conferences.

During the vacation the sadly overcrowded laboratory of water and food analysis has been divided by a partition, to enable the two lines of work to be carried on under more favorable conditions, the two being nearly incompatible in a single room. While no space is gained by this change, it is hoped that there will be a distinct increase in efficiency. The number of students to be cared for



has increased very rapidly of late, and more space is imperatively demanded for this branch of the departmental work, but is nowhere available.

In May Professor Talbot gave his annual informal dinner at the Union to the seniors in chemical engineering and chemistry. The speakers were Mr. C. W. Hubbard, Mr. C. A. Stone, Mr. F. G. Stantial, Dr. W. R. Whitney, Dr. D. R. Dewey and Professor H. W. Hayward. During the last part of last term Dr. Talbot arranged to have tea served in his office on one afternoon in each week for members of the instructing staff, in order to afford an informal meeting place for those whose laboratories are located in the separate buildings. These teas will probably be continued this year.

Professors Walker and Fay attended the meeting of the American Society for Testing Materials at Atlantic City in June, and both read important papers, which excited considerable discussion and comment. Professors Noyes, Talbot, Lewis, Bardwell, Blanchard, Sherrill and Mulliken attended the twentieth anniversary celebration at Clark University in September. Dr. Noyes received the honorary degree, LL.D. Professors Noyes, Talbot, Lewis and Mulliken were guests of the university and gave addresses.

DEPARTMENT OF ARCHITECTURE.—Andrew N. Rebori ('07), holder of the Institute's Travelling Fellowship in Architecture for 1907-08, returned to America recently after thirteen months' travel and study in Europe. On his visit to Professor F. W. Chandler, head of the Department of Architecture, he exhibited a large number of sketches made abroad, and also turned over to the department the two envois that he was required to make.

Rebori began his trip at London, and worked from there through Belgium and France into Italy, spending five months altogether at Paris and six in Rome. One of his envois was made at Paris, and consists of a measured drawing of "La Fontaine de Grenelle," rendered in ink. The other is an elevation of Raphael's Loggia in the Vatican at Rome, and is a remarkable piece of work, all the marbles and mosaics being faithfully represented in color. These

drawings were placed on exhibition in the exhibition room of the department.

C. C. Clark ('10) during the summer won third prize in the competition of the *Brickbuilder Magazine* for a brick house, not to exceed \$10,000 in cost. Third prize was \$150.

Registration in the Architectural Department will run nearly twenty above the number for last year in the second, third, fourth and fifth years. Several classes are so large that they cannot be accommodated in the drawing-rooms. The work of the department has been facilitated this year by the appointment of an instructor to assist with the classes in perspective, working drawings and construction design.

R. J. Batchelder ('08), holder of the Travelling Fellowship for 1909-10, and Rinker Kibbey ('08), former Tech Show star, went abroad in August for a year's travel and study. Miss Mabel Babcock ('08) and Cecil F. Baker ('07) are also abroad. Edgar J. Williams ('08), winner of the American Academy of Rome scholarship in architecture, left in August to take up his three years' residence at the Academy in Rome.

DEPARTMENT OF CIVIL ENGINEERING.—William E. Mott ('89), Associate Professor of Hydraulics at the Institute since 1905, was recently appointed Professor of Engineering Practice at the Carnegie Technical Schools, Pittsburg. Professor Mott during his four years at the Institute established a well-deserved reputation as engineer and teacher, and his resignation is deeply regretted by his colleagues and students. He succeeds at Pittsburg another Tech man, Fred E. Foss ('89), who resigned to accept the appointment to the Chair of Civil Engineering at Cooper Union, New York.

The following graduates of the Class of 1909 have returned to the Institute as Assistants in Civil Engineering: R. L. Cary, W. W. Clifford, F. R. Faulkner, F. S. Lovewell, M. W. Rew, A. L. Shaw.

A recent letter received by Professor Spofford from Mr. Frank E. Hermanns ('99) gives an interesting account of the work and life of an American engineer in China. Upon his return to this coun-

try Mr. Hermanns will address the civil engineering students upon the opportunities for the civil engineer in China.

**DEPARTMENT OF ENGLISH.**—The English Department tries this term a new experiment in freshman composition. The general testimony of college instructors everywhere is that the tendency of students to substitute memorizing for thinking is on the increase. The perfecting of pedagogic systems of fitting boys for examinations is acting to the disadvantage of original thought, so that it becomes constantly more and more difficult to induce students to take the initiative in any of their work. Instead of beginning the course in composition in the usual manner, the English Department will this year give the freshmen some weeks' drill in logical processes, the testing of the accuracy of their own reasoning and in general some training in that power of testing their own thought which is the foundation of all sound writing. A pamphlet has been prepared by Professor Bates, aided by other members of the department, and this will serve as a text-book for the first five weeks. The experiment is an interesting one, as it is an attempt to circumvent the unconscious ingenuity with which the freshman so generally contrives to evade all attempts to make his work a development of the power of correct thinking.

**DEPARTMENT OF BIOLOGY.**—H. O. Jenkins, A.B., Leland Stanford University, will return to the Institute, where he was a special student last year, as private assistant to Professors Sedgwick and Winslow, of the Biological Department. Mr. Jenkins has spent the summer as demonstrator and lecturer in charge of the travelling Sanitary Exhibit of the California State Board of Health.

**DEPARTMENT OF PHYSICS.**—In the Physical Department a research work has been carried on by Dr. Daniel F. Comstock and Mr. G. E. Batchelder.

In the field of magnetism a number of questions have arisen, and it is in an attempt to settle these points that these instructors have begun the research. Do all substances possess two kinds of magnetism? Is even iron diamagnetic? Research alone can throw light on the ultimate nature of magnetized bodies. That two dif-

ferent kinds of magnetism exist in the same body is probably the reason why magnetic phenomena seem so complex and why at the present day so little is known of the subject. A theory has been advanced that the two magnetisms exist in all bodies, and is now being tried out. As there is no known way to separate the two types, if they exist, and study each separately, Dr. Comstock and Mr. Washburn have devised a method which gives promising results. In this method a piece of iron is saturated by a powerful electro-magnet, and then, when the ordinary magnetic property is thus practically paralyzed, its effects having reached a supposed maximum, experiments are made to detect any diamagnetic properties. Results have not yet been completely reviewed, but those now obtained seem to point towards the existence of the diamagnetism in iron. An extension of this theory would lead to the belief that in all substances the two kinds co-exist, and that a substance is magnetic or diamagnetic according as one or the other property predominates in it.

**DEPARTMENT OF MINING ENGINEERING.**—The mining laboratories in the basement of Rogers Building on Boylston Street have recently installed an Allis-Chalmers feeder and a Richards pulsator jig for experimentation in concentration of ores. The pulsator jig was invented by Professor Richards last year, and has proved a great advance. Economy and compactness are the distinguishing features of the professor's invention.

In the Mining Department the following changes in Assistants have been made for the year: F. Jaeger succeeds L. A. Dickinson, T. G. Chapman succeeds L. D. W. Bender, H. R. Batcheller succeeds C. A. Gibbons and E. T. Almy has been appointed.

**DEPARTMENT OF ELECTRICAL ENGINEERING.**—The appointment of Professor Pender as Professor of Theoretical and Applied Electricity in place of Professor Clifford, who resigned to go to Harvard University, has already been announced in *THE TECHNOLOGY REVIEW* for July. Since that time Associate Professor George C. Shaad has been appointed Professor of Electrical Engineering in charge of the department in the University of Kan-



sas, and Mr. W. E. Wickenden has been elected Assistant Professor of Electrical Engineering to take up his work.

Professor Wickenden graduated from Dennison University, Ohio, from a course that was strong in mathematics and physics. He taught for a period at the Rochester Athenæum, and then went to the University of Wisconsin as a graduate student and assistant in the Department of Physics. He has now been on the staff of the Electrical Engineering Department at the University of Wisconsin for the past three years, and has made a reputation as an effective and magnetic teacher. He is author of a book on illumination and photometry which is now in press. Professor Wickenden takes up the work relating to electrical installations and allied matters, such as have heretofore been in the hands of Associate Professor Shaad. His interest in research and matters relating to the extension of the influence of the department is expected to add to the usefulness of the department in many ways.

Professor Lawrence, who has heretofore had charge of the electrical engineering laboratory work, remains in that work, but also takes charge of the lectures and recitations of the fourth-year men relating to alternating current machinery. Mr. Lyon will be his particular assistant in connection with the latter work, and will also have direction of the problem work for third and fourth year men.

Four of the assistants, Messrs. Edwards, Green, Hudson and Thomas, who were on the staff last year, have been promoted to instructorships. Mr. Hudson will be Professor Pender's particular assistant. Mr. Edwards, Mr. Green and Mr. Thomas are assigned to the electrical engineering laboratory work.

Mr. Slack, Technology ('08), who has been an assistant in the physics laboratory during the past year, has been appointed an assistant in the electrical engineering laboratory. Messrs. Glancy and Gray, Technology ('08), and Mr. Van Horn, Wisconsin ('08), have been appointed assistants in the electrical engineering and standardizing laboratories.

Professor Harrison W. Smith has returned from his trip around the world, in which he visited various of the islands of the Pacific, paying particular attention to the island of Java. His leave of

absence for the second term of last year enabled him to make this trip with convenience, and he went supplied with photographic apparatus and means for gathering data and specimens of various kinds.

Professor Lawrence, after teaching in the summer school, spent the remainder of the summer in Europe.

**RESEARCH LABORATORY OF PHYSICAL CHEMISTRY.**—The research staff for this year consists of Professors A. A. Noyes and G. N. Lewis and eight research associates and assistants, three new men having joined it at the beginning of the present term: Dr. K. G. Falk, coming from Columbia University, Dr. W. D. Harkins from the University of Montana and Mr. F. L. Hunt (M. I. T. '09). Three new candidates have also entered upon work for the degree of Doctor of Philosophy: Mr. A. Edgar from Lehigh University, Mr. Merle Randall from the University of Missouri and Mr. F. F. Rupert from the University of Kansas.

Professor A. A. Noyes and Dr. W. C. Bray, of the staff of the Research Laboratory of Physical Chemistry, took during the summer a vacation tour in Europe, spending most of the time in Spain, Italy and Switzerland. The former also attended the exposition of dirigible balloons at Frankfort and the *aéroplane* competition during "aviation week" at Rheims.

**DEPARTMENT OF MATHEMATICS.**—Professor F. S. Woods, of the Mathematical Department, joint author with Professor Baily of the new text-book of mathematics, has been granted a year's leave of absence, which he will spend in mathematical work in Germany and Paris. Dr. N. J. Lennes has been appointed Instructor for the year, and Dr. C. L. E. Moore has been promoted to the rank of Assistant Professor. Professor Harry Tyler has accepted the chairmanship of the national committee on the teaching of mathematics in technical colleges and departments. It is hoped that the work of this committee, when correlated with that of similar committees in other countries, will prove of much value and importance. Reports are expected to be presented at the International Mathematical Congress at Cambridge, England, in 1912.

DEPARTMENT OF MECHANIC ARTS.—The room vacated by the Technology Union has been given to the Department of Mechanic Arts for an enlargement of the Filing and Machine-tool Laboratories. In April last the apparatus for instruction in pipe-fitting was transferred from the machine-tool Laboratory, and at the same time an equipment of pneumatic hammers, drills and riveting tools, donated to the Department of Naval Architecture by the Chicago Pneumatic Tool Company was installed with a 9" x 9" air compressor loaned by the same company. The entire equipment, with its air storage tanks and piping, was used for instruction during the latter portion of last year, and instruction in the use of pneumatic tools is now given to all classes in connection with the work in chip-ping and filing.

A new electric lighting plant is now nearly installed, which will furnish current for lighting and power for the Gymnasium and the mechanical laboratories. A Sturtevant 25 kw. direct connected unit, with a multipolar compound wound generator, will supply current at 230 volts on a two-wire system. A balancer set made by the Crocker Wheeler Company enables the lighting current of 115 volts to be obtained on a three-wire system, the extreme wires being used for power. The exhaust steam is used for heating.

The new lighting with its special fixtures will be very superior to the gas light formerly employed in the mechanical laboratories.

Instruction in foundry work is now required in the senior year of the courses in mechanical engineering and naval architecture, and to that end the foundry equipment has been improved and a new course has been planned. It is hoped also to soon install a new melting plant.

There have been many changes in the instructing staff: Mr. Theodore B. Merrick, now over seventy-five years of age, was retired on October 1 by the Carnegie Foundation, after twenty-five years of successful service as instructor in wood-work and foundry-work.

Mr. Albert L. Moulton, assistant in wood-work and foundry-work, resigned to accept a position at the Mechanic Arts High

School, Boston. Mr. Alfred R. Hunter, assistant in chipping and filing, resigned to accept a promising business opening. Mr. Ernest Curley, assistant in machine-tool work, has also resigned.

The following new appointments have been made:—

Mr. Jeremiah F. O'Neil as instructor in wood-work and foundry-work, Mr. Arthur B. English as assistant in machine-tool work, and Mr. Samuel W. Rounds as assistant in wood-work and foundry-work.

Mr. O'Neil has been connected with manual work and manual training for the last twenty-three years. After graduating from the Boston public grammar schools, he took charge of the tool-room of the M. I. T. mechanical laboratories, where he served successfully for four years, obtaining considerable experience in machine work, and becoming so interested that he later served his time as a machinist and then worked as a journeyman several years. During this period of twelve years he employed his evenings in study and in attending evening schools in drawing and high-school studies. In 1889 he accepted a position as instructor in manual training and laboratory assistant in physics at the St. Paul's School of Concord, N.H., where he remained four years, resigning to spend a year in study at the Institute, where he took up advanced work in mechanic arts, drawing, descriptive geometry and English. On completion of this course he served two years as assistant in wood-work and foundry-work at the Institute, resigning to accept the position of sub-master in manual training at the Malden High School, which he has successfully filled during the last five years. Mr. O'Neil has entered with enthusiasm into his chosen work, and has utilized his summer vacation in study at summer schools and in obtaining practical experience in pattern and foundry-work. He is a member of the Class of 1902, and of several teachers' associations, an associate member of the M. I. T. Alumni Association, and is secretary of the Boston Manual Training Club.

Mr. English served his time as a machinist at the Trimount Manufacturing Company, Roxbury, Mass., and has worked as a journeyman machinist ten years, working as a die-maker for a large part of the time. He is very much interested in manual train-



ing work, and comes with the purpose of obtaining experience in teaching.

Mr. Rounds is a graduate of the Roxbury Grammar School, and has also taken courses in drawing and mathematics in the International Correspondence School. He has worked as a journeyman pattern-worker, and has had several years' experience in machine shops and in the foundry. He has also done considerable mechanical drawing in connection with his other work. He is very much interested in manual training work, and comes with the purpose of obtaining experience in teaching.

Mr. R. H. Smith, instructor in machine-tool work, has for several years been engaged in the preparation of a text-book on machine work, prepared for students in technical manual training, and trade schools and for the apprentice. It is to be published in three parts, the first two of which are now in press.

*Part I.*, Elements of Machine Work, is devoted to hand-work, and covers laying out work, chipping and filing, scraping, hardening and tempering, pipe-fitting, soldering and brazing.

*Part II.*, Principles of Machine Work, covers machine work such as lathe-work, chuckering, cylindrical grinding and drilling.

*Part III.*, Advanced Machine Work, covers advanced lathe-work, boring, planing, milling and gear-cutting.

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### Publication of "Review" Delayed

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It is the intention of the Board of Publication to issue the REVIEW during the first week of the month in which it is due, and on the first day, if possible. The July number was necessarily delayed because of the unusual amount of time required to prepare it. The October REVIEW has been purposely delayed in order to get the news of the Institute which our readers want to see. Class and association secretaries will, however, please arrange to send in their manuscript for the January REVIEW not later than the 10th of December. If this matter can conveniently be sent in earlier, it will be appreciated.

ACTIVITIES OF THE EDUCATIONAL STAFF

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Professor Richards has returned from the West, where he has spent the summer in the mills of Colorado, Arizona, Nevada, Idaho, Montana and Utah. Dr. Richards, who is the oldest Technology graduate, also, through the efficient aid of E. S. Bardwell, E. G. Goodwin and C. E. Locke, completed the third and fourth volumes of his work "Ore Dressing," on which he is considered an authority throughout the world. The first two volumes of this book were published in 1903, and contained all the information on the subject then at hand. Six years of experiment and research of Professor Richards and other eminent scientists have sufficed to fill two more large books. The work is a scientific treatise and too lengthy for use as a text-book, so the author has prepared a condensation of all four volumes, which will be off the press in a few weeks, to be used by Technology and other technical institutions.

Professor Davis R. Dewey has been engaged during the summer in the preparation of two reports for the National Monetary Commission, entitled "The Second Bank of the United States" and "Banking Practice and Real Estate Charters."

The Director of the Census has appointed Professor C. W. Doten a special agent of the Census Bureau, in the Department of Economics, to co-operate with a staff of experts drawn largely from the college list. Professor Doten has been in Washington a large part of the summer, engaged on this work. Professor Doten is secretary of the American Statistical Association. He is also a specialist in railroad economics and accounting, labor problems, factory systematizing and social investigation.

At the meeting of the Alumni Association of the University of Virginia, Professor Gaetano Lanza, who is an alumnus of that institution, spoke in behalf of the New England alumni. Professor Lanza also attended the meetings of the American Society for Testing Materials in June. Professor Lanza and Lawrence S. Smith,

of the Institute, will present a paper at the New York meeting of the American Society of Mechanical Engineers, in November, on "Reinforced Concrete Beams."

At the meeting of the American Society for Testing Materials at Atlantic City, this summer, Professor William H. Walker read a paper on the testing of galvanized and other zinc-coated metals.

Among those who addressed the Boston section of Mechanical Engineers at a meeting held June 11 was Professor E. T. Miller, of the Mechanical Engineering Department.

Professor W. H. Niles, who has been for many years president of the Lawrence Scientific School Association, resigned his office at the meeting in June. Professor Niles has been in poor health since the death of Mrs. Niles, but is now very much improved, and is able to be at the Institute every day.

Among the speakers at the twentieth anniversary of the founding of Clark University, Worcester, were Professor Percival Lowell, non-resident professor of astronomy; Professor H. P. Talbot, who spoke on the co-relation of the chemical courses in the secondary schools and colleges; Professor Arthur A. Noyes, who informally discussed chemistry as a study; Professor G. N. Lewis, on the free energy of chemical reaction; and Professor S. P. Mulliken.

Professor Thomas A. Jaggar spent the summer in studying volcanoes in the Hawaiian Islands and Japan. During his stay in Honolulu he delivered an address which stirred up much interest in the work that may be accomplished by geophysical laboratories co-operating with each other. Professor R. A. Daly also spent part of the summer at Hawaii, examining the volcano Kalauei, which was in active operation.

Mrs. Ellen H. Richards, instructor in sanitary chemistry, was the principal speaker before the department of elementary education of the National Education Association, held at Denver in July, on the need of domestic science and the household arts in the elementary schools. Mrs. Richards' activities during the summer were very numerous. Early in the summer she was a member of the faculty at the summer session at the University of California, Berkeley, Cal. Mrs. Richards is president of the newly formed

American Home Economics Association. The object of the association is to improve the condition of living in homes throughout the country. It has a membership of 800.

Professor W. T. Sedgwick has been at Seal Harbor, Me., preparing for a very active year. He will speak at the conference of health officers to be held at Rochester, N.Y., the middle of November. Professor Sedgwick has been engaged to contribute to a new department, which is about to be inaugurated by the *World's Work*, which will be devoted exclusively to health matters.

Professor C.-E. A. Winslow has been appointed a member of the committee of the Boston Chamber of Commerce, on the prevention of disease and accidents, and has been invited by the chairman of the Boston School Committee to serve as a special advisory committee on the department of hygiene of the Boston public schools.

Professor S. C. Prescott lectured on milk supply at Dublin, N.H., in July, under the auspices of the Dublin Chemical and Pathological Laboratory.

Professor Moore was engaged during the summer upon his regular work of bridge inspection for the Massachusetts Railroad Commission; Professors Breed and Hosmer, upon the preliminary investigations of a proposed hydraulic power plant in Vermont; Mr. Bradbury, upon bridge inspection for the Boston Elevated Railroad and in assisting Mr. Sanford Thompson ('89) in the preparation of the new edition of "Concrete, Plain and Reinforced"; and Mr. Howard, upon triangulation work connected with the town boundary survey of Massachusetts.

Professor Russell has recently issued a book entitled "A Text Book on Hydraulics." This book is intended primarily for undergraduate students of engineering, and not as a treatise for the practising engineer, but the concise and logical manner of developing and setting forth the fundamental theories will make it valuable for such readers also. It fills a long-felt want at the Institute for a suitable text-book on the theory of hydraulics. In addition to his work upon this book Professor Russell has been engaged during the summer upon an investigation of freight subways for Boston.

Professor Robbins has spent considerable time during the sum-



mer in investigating suitable sites for a summer camp of surveying. The necessity for giving all the instruction in field work during the summer becomes greater each year, and no one thing would strengthen the department more than the establishment of a permanent summer camp.

Professor Mulliken has spent a large part of his summer in the correcting of proofs of the third volume of his work on the systematic identification of organic compounds, which will soon be issued, and will represent the result of a very large amount of careful work. Professor Woodman has been busy with problems of food chemistry, Professor Blanchard with some research in inorganic chemistry and Professor Bardwell, in conjunction with Dr. Spear, in the revision of the laboratory manual for first-year chemistry.

Professor Harold Pender of the Department of Electrical Engineering has decided to write a book on transmission lines after considering the matter for some time. He will commence work on the treatise this fall, but does not expect to give it to the public in less than two years. The work will take up the discussion of design and construction, and will be approximately 250 pages in length. The book, when completed, will fill a unique space in the ranks of professional literature, as the only present work on the subject is very incomplete and antiquated. As a text-book and reference volume for practising and consulting engineers, the book will be eagerly awaited. Professor Pender came to the Institute last June from the New York Illuminating Commission. He is chiefly noted for his research work at the Carnegie Institute and at Sorbonne University, Paris, in magnetic fields.

Professor H. W. Hayward has carried on several concrete tests in the mechanical laboratories this summer, the results of which are not yet known. The Technology laboratory has received the majority of the government concrete tests previously carried out at the Watertown Arsenal, and some of this work is now in progress. During the ensuing year advanced students will do considerable of this work.

Professor Arlo Bates, head of the English Department, has completed a new pamphlet on English composition which will be used

during the first five weeks by the freshman class this year. The pamphlet will precede the "Principles of English Composition" by Professor Pearson of the Institute, which has been used for several years, the latter now being used during the last part of the year.

Professor Cecil H. Peabody, of the Naval Architecture Department, has completed the revision of his new set of steam tables, which will be used in classes this year. The tables are a set of involved mathematical computations relating to steam expansion and power, and are expected to displace the Renault tables which have been used for a number of years. The latter have been proved to be inaccurate both by the Peabody tables and those compiled recently by Professor H. N. Davis, of Harvard. Professor Peabody and Professor Davis worked entirely independently, but a comparison of the two works shows them to be practically the same, proving the mistakes in the old tables.

Professor S. C. Prescott, of the Department of Biology, has been appointed milk inspector of the town of Belmont, and has been elected chairman of the committee on commercial training of the board of trustees of the Sanborn Seminary, Kingston, N.H. He visited at the Seattle fair, where he studied biological and sanitary exhibits.

Professor C.-E. A. Winslow, of the same department, has been granted a leave of absence for the months of January-March, 1910, to accept an appointment as assistant professor of bacteriology at the University of Chicago for the winter term, when he will take the place of Professor E. O. Jordan (M. I. T. '90), who goes to Europe. Professor Winslow has recently published a treatise on the "Sanitary Significance of Bacteria in Sewer Air."

Professor Charles B. Breed, author, in conjunction with Professor George L. Hosmer, of the two-volume work, "The Principles and Practice of Surveying," is engaged on the preparation, in the surveying and railroad engineering section, of the new "Engineers' Handbook," which is to be published in a year under the editor-in-chiefship of Professor Mansfield Merriman, formerly head of the Department of Civil Engineering at Lehigh University.

The new work is expected to replace the handbooks now in general use, and its authors compose some of the most prominent engineers in the country.

Professor H. W. Hayward has carried on several concrete tests in the mechanical laboratories this summer, the results of which are not yet known. The Technology laboratory has received the majority of the government concrete tests previously carried out at the Watertown Arsenal, and some of this work is now in progress. During the ensuing year advanced students will do considerable of this work.

Professor Charles M. Spofford, of the Department of Civil Engineering, has in preparation a book on the theory of structures which will be published next summer. The work is a 400-page affair, comprising the notes which the professor has gained in his wide professional experience and which are used in his lectures. The book will be essentially a text-book, but will be a handy guide for the man in practice. Professor Spofford will follow the first volume with a second on higher structures, making a book for graduate students in civil engineering.

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### Professor Shaad leaves the Institute

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Professor George C. Shaad, of the Electrical Engineering Department, resigned during the summer to become the head of the Department of Electrical Engineering at the University of Kansas. Professor Shaad is a graduate of Pennsylvania State College in the class of '00, receiving the degree of Electrical Engineer in 1905. He came to Technology in 1906 from the Faculty of the University of Wisconsin. He is a member of the American Institute of Electrical Engineers, the American Street and Interurban Railway Association, the Illuminating Engineering Society, the Society for the Promotion of Engineering Education and the National Electric Light Association.

## ALUMNI COUNCIL

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First Meeting of the Council, May 12, 1909, 6.30 p.m., at the  
Technology Club, Boston, Mass.

This meeting was immediately preceded by an informal meeting of the Executive Committee, and by special invitation Messrs. Litchfield, Morss, Munroe, Noyes, and Snow.

Dinner was served at 6.30, and the meeting was called to order at 7.45 by the president, Edwin S. Webster, '88. The following members were present:—

Officers of the Association:—

*President*, Edwin S. Webster, '88.

*Vice-President*, Albert F. Bemis, '93.

*Secretary-Treasurer*, Walter Humphreys, '97.

*Executive Committee*, { Howard L. Coburn, '87.  
W. Spencer Hutchinson, '92.  
William S. Johnson, '89.

Latest living ex-presidents:—

W. B. Snow, '82.

Everett Morss, '85.

Frank L. Locke, '86.

Representatives at large:—

J. H. Knight, '96.

C. R. Cross, '70.

A. D. Little, '85.

C. T. Main, '76.

Class representatives:—

'68, Robert H. Richards.

'69, Howard A. Carson.

'70, E. K. Turner.

'77, R. A. Hale.

'79, E. C. Miller.

'80, George H. Barton.

'82, James P. Munroe.

'83, Harvey S. Chase.

'84, Harry W. Tyler.

'85, I. W. Litchfield.

'86, Arthur C. Robbins.

'89, Walter H. Kilham.

'90, William Z. Ripley.

'91, Charles Garrison.

'93, Frederic H. Fay.

'94, S. C. Prescott.

'95, Andrew D. Fuller.

'96, J. A. Rockwell.



'97, C. W. Bradley.  
'98, C.-E. A. Winslow.  
'99, H. J. Skinner.  
'01, Robert L. Williams.

'03, F. A. Olmsted.  
'06, George F. Hobson.  
'07, Lawrence Allen.  
'08, H. A. Rapelye.

Local societies:—

Technology Club of the Merrimack Valley, George Bowers, '75.  
Washington Society of the M. I. T., I. W. Litchfield, '85.  
Technology Club of New York, Francis C. Green, '95.  
Northwestern Association, M. I. T., I. W. Litchfield, '85.

Also by special invitation, Acting President, Professor Arthur A. Noyes.

President Webster made a few introductory remarks in which he welcomed the Council to its first meeting. He spoke of its being a very representative body of the alumni and the first organized body which has been so thoroughly representative. He also spoke of the ability of such a body to perform intelligently work which is acceptable to the Corporation and the Faculty of the Institute, and the great assistance that it can give in the development of the Institute. He noted that this meeting is one of transition, and on that account the reports of the various committees of the old Alumni Association would be presented first. Following that an important communication from the Acting President of the Institute would be presented, and action taken on the suggestions contained therein.

Following this the various reports were read and accepted.

The following is the report of the secretary:—

There have been held during the past year—that is, from the first of December, 1907, to December, 1908—thirteen meetings of the Executive Committee. By vote of the Executive Committee the officers of the Association remain in power until midnight on the day of the annual dinner. From Dec. 1, 1908, to Jan. 14, 1909, inclusive, there have been five additional meetings of the Executive Committee. At these meetings 96 associate members have been elected against 110 of the previous year. The number of life members has increased from 161 to 183. One honorary member has been elected during the year, Dr. Richard Cockburn MacLaurin.

The Alumni Office has been transferred from the care of the Institute directly to the care of the Alumni Association, and arrangements have been made whereby the office gives assistance to the Institute at a regular rate of 33½ cents per hour, which includes stenographic and other general clerical assistance. An important part of this work is the maintenance of the card catalogue of former students.



*Committee on School*, Linwood O. Towne, '78.

*Trustee of Alumni Fund and of Life Membership Fund*, James P. Munroe, '82.

*Advisory Council on Athletics*, Frank H. Briggs, '81.

The following were nominated for term members of the Corporation:—

Walter B. Snow, '82.

Theodore W. Robinson, '84.

Charles R. Richards, '85.

Hollis French, '89.

George C. Whipple, '89.

James Swan, '91.

William H. King, '94.

E. Laurence Hurd, '95.

As a result of the annual ballot of the Alumni Association and of the annual meeting of the Corporation, the following men were elected to term membership on the Corporation:—

Walter B. Snow, '82.

Theodore W. Robinson, '84.

Charles R. Richards, '85.

The Executive Committee, at the time of the election of Dr. MacLaurin as President of the Institute, took special interest in circulating among all the alumni a short biography and report of a conference with Dr. MacLaurin, as it was believed that it would be of interest to the members.

The Executive Committee of the Alumni Association during the past year voted to assume the publication of THE TECHNOLOGY REVIEW if the details could be satisfactorily arranged. When the REVIEW became the official organ of the Alumni Association, Mr. I. W. Litchfield, of the class of '85, was elected editor.

Immediately after this the constitution was examined to see what changes should necessarily be made. A special committee was appointed—Messrs. Bemis, Robbins and the President and the Secretary—to consider the necessary amendments to the constitution to provide for the publication of THE TECHNOLOGY REVIEW. The committee reported that it found that a general change in the constitution was desirable, and the Executive Committee appointed a committee made up of Messrs. Bemis, Coburn and Robbins, with the President and the Secretary *ex officio*, to consider a new constitution and to report at the next meeting. This committee performed its work very carefully, and made a report which was discussed very much in detail. The Association of Class Secretaries was invited to confer with the Executive Committee, and a joint committee from these associations was then appointed to consider and report on the matter. Meetings were held, and further discussion took place. As a result, two forms of constitution were presented to a joint meeting of the Executive Committee

and the Association of Class Secretaries, and the present form was approved, subject to its confirmation by the alumni in general. At the time of the annual election this form of constitution was sent to all members to be voted upon. As noted in THE TECHNOLOGY REVIEW, which had been adopted as the official organ of the Association, this vote was practically unanimous in the acceptance of the new constitution. Immediately the Executive Committee secured nominations for members of the new council, and a ballot was taken resulting in the following membership:

Representatives at large:—

*To serve for one year.*

Edward Cunningham, '91.  
J. H. Knight, '96.  
H. Souther, '87.  
J. Swan, '91.  
A. Winslow, '81.

*To serve for two years.*

C. R. Cross, '70.  
A. D. Little, '85.  
C. T. Main, '76.  
G. F. Swain, '77.  
J. P. Tolman, '68.

Class representatives:—

'68, Robert H. Richards.  
'69, Howard A. Carson.  
'70, E. K. Turner.  
'71, E. W. Rollins.  
'72, Maurice B. Patch.  
'73, F. H. Williams.  
'74, George H. Barrus.  
'75, Thomas Hibbard.  
'76, John R. Freeman.  
'77, R. A. Hale.  
'78, C. M. Baker.  
'79, E. C. Miller.  
'80, George H. Barton.  
'81, John Duff.  
'82, James P. Munroe.  
'83, Harvey S. Chase.  
'84, Harry W. Tyler.  
'85, I. W. Litchfield.  
'86, Arthur G. Robbins.  
'87, E. G. Thomas.  
'88, A. T. Bradlee.

'89, Walter H. Kilham.  
'90, William Z. Ripley.  
'91, Charles Garrison.  
'92, Leonard Metcalf.  
'93, Frederic H. Fay.  
'94, S. C. Prescott.  
'95, Andrew D. Fuller.  
'96, J. A. Rockwell.  
'97, C. W. Bradlee.  
'98, C.-E. A. Winslow.  
'99, H. J. Skinner.  
'00, H. E. Osgood.  
'01, Robert L. Williams.  
'02, C. A. Sawyer.  
'03, F. A. Olmsted.  
'04, M. L. Emerson.  
'05, G. DeW. Marcy.  
'06, George F. Hobson.  
'07, Lawrence Allen.  
'08, H. A. Rapelye.

One of the latest duties of the Executive Committee of the past year was to elect a committee to take charge of the Second All-Technology Reunion in 1909, as follows:—



Edwin S. Webster, *Chairman.*

Henry Howard.  
George T. Kittredge.  
I. W. Litchfield.  
Everett Morss.

A. A. Noyes.  
Theodore W. Robinson.  
W. B. Snow.  
Hon. Eben S. Draper.

The Executive Committee in November voted that a list of former students who were not included in the Register of Graduates be published, and that the secretary be authorized to prepare such a list. The Association has co-operated in this matter with the Institute.

The report of the annual dinner, at which there was an attendance of 550, was published in THE TECHNOLOGY REVIEW. In view of the fact that the new constitution was adopted before the dinner, the annual meeting of the Association was not held previous to the banquet.

The amount received for dues during the past year was \$1,661.48 as compared with \$1,579.15 of the previous year.

## FINANCIAL REPORT

Balance on hand Dec. 1, 1907 . . . . . \$1,019.92  
Receipts:—

Dues . . . . .	\$1,661.48
Life Membership . . . . .	440.00
Review Subscription . . . . .	536.00
Song Book . . . . .	1.25
Interest on Deposit . . . . .	33.26
Dinner Tickets . . . . .	482.00
Gifts . . . . .	45.85
Pops and Spread Tickets . . . . .	2,109.55

Outside:—

Labor . . . . .	127.20	
Supplies . . . . .	393.46	
Other Alumni Organizations for Fees, Dues, Dinners, etc. . . . .	103.25	5,933.30
		<hr/> \$6,953.22

Disbursements:—

Supplies . . . . .	\$82.27
Stationery, Postage, Printing . . . . .	860.09
Publishing Nominations . . . . .	28.80
Express and Car-fares . . . . .	1.25
<i>Carried forward</i> . . . . .	<hr/> \$972.41
	\$6,953.22

<i>Brought forward</i> . . . . .	\$972.41	\$6,953.22
Song Book, Account of Subscriptions received . . . . .	1.25	
Review Subscription . . . . .	537.00	
Trustees of Life Membership Fund . . . . .	299.00	
Collection Charges, and one Check returned unpaid . . . . .	15.60	
Dinner:—		
Expenses . . . . .	753.77	
Refund . . . . .	16.00	
Clerical Work and Salaries . . . . .	318.80	
M. I. T., Maintenance of Office . . . . .	500.00	
Pops and Spread . . . . .	1,893.82	
In Connection with Outside Work . . . . .	473.84	
Amount paid to Other Alumni Organizations for Fees, Dues, Dinners, etc. . . . .	38.59	5,820.08
Balance on hand Dec. 1, 1908 . . . . .		\$1,133.14
Bills payable . . . . .	\$1,020.04	
Bills receivable . . . . .	579.17	440.87
General Fund available Dec. 1, 1908 . . . . .		\$692.27
General Fund available Dec. 1, 1907 . . . . .		306.01

The following is the report of the trustees of the Alumni Fund and of the Life Membership Fund, presented by Mr. James P. Munroe:—

The trustees of the M. I. T. Alumni Fund and of the M. I. T. Life Membership Fund report for the year 1908 as follows:—

Amount of Alumni Fund, December, 1907 . . . . .	\$1,400.18	
Received from Coupons, Tech Club Bonds . . . . .	40.00	
Interest, Franklin Savings Bank . . . . .	16.14	\$1,456.32
Amount Life Membership Fund, December, 1907 . . . . .	\$3,059.93	
Received from W. Humphreys, Secretary M. I. T.		
Alumni Association (22 life members' fees) . . . . .	440.00	
Interest, Franklin Savings Bank . . . . .	43.64	
Interest, Five Cents Savings Bank . . . . .	75.21	
	\$3,618.78	
<i>Carried forward</i> . . . . .	\$3,618.78	\$1,456.32

# Alumni Council

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<i>Brought forward</i> . . . . .	\$3,618.78	\$1,456.32
Paid to W. Humphreys, Secretary M. I. T. Alumni Association (\$1 for each of the 183 life members),	183.00	\$3,435.78
	<hr/>	
Total Funds held by the Trustees . . . . .		\$4,892.10

The funds are invested as follows:—

Ten (10) \$100 second mortgage Technology Club 4%	
Bonds . . . . .	\$1,000.00
Deposit in Franklin Savings Bank . . . . .	456.32
Deposit in Franklin Savings Bank . . . . .	1,124.43
Deposit in Five Cents Savings Bank . . . . .	2,311.35
	<hr/>
	\$4,892.10

Alumni Fund receipts and expenditures since the beginning of the Trust (1880):—

From Treasurer of the Alumni Association . . . .	\$1,069.00	
From Interest on Investments . . . . .	1,271.01	
Bond premium . . . . .	40.00	
Cash received in 1898 . . . . .	10.00	\$2,390.01
	<hr/>	

Payments made on order of Executive Committee of the M. I. T. Alumni Association . . . . .		933.69
		<hr/>
		\$1,456.32

Respectfully submitted,

(Signed) JAMES P. MUNROE,  
FRANK L. FULLER,  
EDWIN C. MILLER,  
*Trustees.*

The following is the report of the trustee of the William Barton Rogers Scholarship Fund:—

## REPORT OF THE COMMITTEE ON THE WILLIAM BARTON ROGERS SCHOLARSHIP FUND, JANUARY, 1909

This fund was established to honor the name and memory of President Rogers.

The fund was founded in 1885, and the collection of it from the members of the Alumni Association occupied five years. It first went into operation in the year 1890-91.

The interest on the investment, together with the sums returned by former beneficiaries, are both used for aiding students now in the school. It is therefore very important that former beneficiaries should pay back the amounts received at the earliest date possible. The committee regrets that this has not been done. The committee thinks the beneficiaries do not all remember the straits they were in for money, the feeling of gratitude when the money came, and the benefits they were able to derive from having the money. If more of them remembered these things, more money would be paid back to help other young men to derive the same comfort and profit.

The following account is taken from the books of the treasurer:—

<i>Dr.</i>	
Oct. 1, 1907, balance on hand . . . . .	\$11,735.40
To interest for year ending Sept. 30, 1908 . . . . .	469.42
To refunded by former students . . . . .	297.50
	<u>\$12,502.32</u>

<i>Cr.</i>	
Sept. 30, 1908.	
By scholarships awarded:	
Eleazer Myers . . . . .	\$100.00
Benjamin Bullard . . . . .	125.00
Chalmers Clapp . . . . .	100.00
F. E. Goodnow . . . . .	200.00
Donald Bowman . . . . .	100.00
H. E. Batsford . . . . .	50.00
W. E. Booth . . . . .	50.00
E. E. Kilburn . . . . .	100.00
E. E. Genoud . . . . .	100.00
	<u>\$925.00</u>
Balance on hand Sept. 30, 1908 . . . . .	11,577.32
	<u>\$12,502.32</u>

The total sums paid to students during the eighteen years the fund has been in operation are given in the following table, together with the amounts that have been paid back on each year's account:—



Year.	Number Students Aided.	Amounts Actually Awarded.	Amounts Paid back.	Balance Due.	Amounts which could have been awarded if prompt payments had been made, calling annual inter- est \$400 and 3 years needed to pay.
1890-91 . .	2	\$150.00	\$150.00		
1891-92 . .	8	325.00	150.00	\$175.00	\$400.00
1892-93 . .	7	450.00	325.00	125.00	400.00
1893-94 . .	6	375.00	200.00	175.00	400.00
1894-95 . .	4	450.00	325.00	125.00	800.00
1895-96 . .	5	450.00	175.00	275.00	800.00
1896-97 . .	6	400.00	50.00	350.00	800.00
1897-98 . .	5	500.00	100.00	400.00	1,200.00
1898-99 . .	21	1,087.50	350.00	737.50	1,200.00
1899-00 . .	5	525.00	175.00	350.00	1,200.00
1900-01 . .	7	512.50	212.50	300.00	1,600.00
1901-02 . .	7	600.00	200.00	400.00	1,600.00
1902-03 . .	6	525.00	175.00	350.00	1,600.00
1903-04 . .	5	500.00	200.00	300.00	2,000.00
1904-05 . .	5	425.00	200.00	225.00	2,000.00
1905-06 . .	9	625.00	50.00	575.00	2,000.00
1906-07 . .	8	625.00	00.00	625.00	2,400.00
1907-08 . .	9	925.00	175.00	750.00	2,400.00
	125	\$9,450.00	\$3,212.50	\$6,237.50	\$22,800.00

On account of this unsatisfactory showing the Alumni Association at its meeting in January, 1908, referred the question of adopting a new form of note more binding than that used in the past to a committee consisting of Robert H. Richards, A. A. Noyes and H. W. Tyler, with power to frame such a note for immediate adoption. The note framed by this committee, and which is now in use, is as follows:—

In consideration of \_\_\_\_\_ dollars paid to the signer hereof from the William Barton Rogers Scholarship Fund of the Massachusetts Institute of Technology, the receipt whereof is hereby acknowledged, the undersigned agrees to repay said sum without interest to said Institute within three years of the date of discontinuing his studies at said Institute. It being further understood between the signer hereof and the said Institute that, if payment is not made by that date, interest on this note shall begin on said date at the rate of 6% annually until said note is paid.

Respectfully submitted,

(Signed)

ROBERT H. RICHARDS,  
Committee.

The following is the report of the Walker Memorial Committee, presented by H. W. Tyler:—

#### ANNUAL REPORT OF THE WALKER MEMORIAL COMMITTEE

The present condition of the Walker Memorial Fund is shown in the following financial statement:—

##### *Receipts*

Subscriptions received by Treasurer of Alumni Committee . . . . .	\$83,118.34
Interest . . . . .	1,047.50
Additional subscriptions by Treasurer of Institute . . . . .	11,538.34
Interest on fund after investment by Treasurer of Institute (to Jan. 1, 1909) . . . . .	27,364.66
<b>Total . . . . .</b>	<b>\$123,068.84</b>

##### *Expenses*

Bills paid by Treasurer of Alumni Committee . . . . .	\$2,210.77
Bills paid by Treasurer of Institute . . . . .	1,332.10
Total bills paid . . . . .	3,542.87
Less appropriation of Association . . . . .	600.00
Total bills paid from fund . . . . .	\$2,942.87
Balance in hands of Alumni Committee . . . . .	2,505.07
Balance in hands of Treasurer of Institute . . . . .	117,620.90
	<b>\$123,068.84</b>

The unpaid outstanding subscriptions amount to about \$25,000. The committee has deemed it inexpedient to attempt to collect these until the plans for the actual use of the fund should be more definitely developed.

While the committee deeply regrets the prolonged delay of such plans, we are gratified to add that there is reason for confident hope that the long pending question of the Institute's permanent location is now in line for early settlement. Moreover, the delay referred to will not be without considerable advantage in the experience gained by the establishment and conduct of the present Technology Union. The success of this undertaking, for which, in addition to a share of the Alumni Income Fund, special funds were secured through the generosity of members of the Corporation, is the best evidence of the advantage to be expected from the Walker Memorial itself.

The new requirement of physical training in the first year also emphasizes the importance which the Memorial will have for future students.

We have reason to expect that the extended litigation on the generous bequest of the late F. H. Cilley, of the Class of '89, devoting nearly \$50,000 to special important purposes in connection with the Walker Memorial, will be terminated in the near future.

The committee has received an inquiry from the chairman of the Advisory Council on Athletics as to the possibility of applying a part of the income of the Walker Memorial Fund to meet certain much-needed expenses at the athletic field. While the conditions under which the fund was secured seem to preclude such use of it, the committee deems it only fair to express its cordial interest in the important work of the Advisory Council, and its hope that the Council of the Alumni Association may support it in any practicable way.

For the Committee,

H. W. TYLER, *Chairman*.

FEBRUARY, 1909.

Acting President Noyes announced that he believed that the end of the litigation in the case of the Cilley will, so far as any litigation can be terminated, was reached, and that it was the expectation that the fund would be turned over to the three trustees appointed, and become available for the maintenance of the Walker Memorial, for certain parts of the Walker Memorial Gymnasium, when built.

Following is the report of the Advisory Council on Athletics, presented by Dr. J. Arnold Rockwell ('96):—

#### REPORT OF ADVISORY COUNCIL ON ATHLETICS, JAN. 14, 1909

Your Council feels that the results of the past few years, notably the year just ended, merit the support and confidence the alumni have tendered it. Our Institute is inclined to allow us practically free administration of athletic affairs,—again a token of confidence. Educators are considering more and more the necessity for scientific control of college athletics, and with modest pride we note the general tendency to parallel our methods. The results corroborate our working plan, as seen in the development toward the all-round physically perfect man. Success in life depends not a little upon physical well-being, and by practice and precept we endeavor to develop a physique which shall make possible one's mental attainments.

The sports favored in the past have been Track Athletics, Cross Country Running, Lawn Tennis, Golf, Fencing, Basket Ball and Hockey. The

Institute has teams in the New England College Associations in Track Athletics, Golf and Lawn Tennis, and has made application for membership in the Intercollegiate Association of Amateur Athletics of America.

Dual Meets were held by the Track Teams with the University of Maine and Brown University, the Institute Team being victorious in both Meets. The Cross Country Team ran at the Intercollegiate Run at Princeton, finishing second and being defeated by Cornell only.

Tech Field Day again brought out a large and enthusiastic attendance. Field Day in 1908 was won by the Class of 1912, this being the only time that a freshman class has won since the inauguration of Tech Field Day in 1901, when the class of 1905 was victorious. The Tech Cross Country Team also defeated Harvard in the Cross Country Run.

This year a method of compulsory gymnastic work was instituted by the Faculty, and the freshmen were given the option of taking athletics or gymnastics, and forty-four men chose the former. In addition there practised in the freshman class, in connection with the various Field Day sports, at least one hundred men, and a similar number from the sophomore class. Besides these there were about sixty men who took part in athletic work, members of other classes.

Last winter the number of men who were exercised under the supervision of the athletic coach, Mr. Frank M. Kanaly, was about forty, and on Tech Field, in the spring, about eighty-five men.

In addition to this there was hardly a day that the field was not used by Class or Course Baseball Teams. There has been a large increase in the interclass and intermural contests. The Freshmen-Sophomore Cross Country Run has been established, and also a track competition, particularly for freshmen.

The alumni has shown greater interest than ever before in the athletic work, particularly in the Cross Country line, several prominent runners of the past having taken active and personal interest in the work.

Permanent cups have also been offered as prizes to be competed for at the spring games for the winner of the Mile Run and the winner of the 440-yard dash and 120-yard hurdles.

An Interscholastic Cross Country Race was held under M. I. T. auspices.

The lines of sport which have been favored by the Advisory Council are unproductive financially, and, although the "Tech" Show as a rule helped us out very considerably, yet in the year which has just passed the financial returns from this were many hundreds of dollars below that of the preceding year. The consequence is that, in order to continue in

the broad lines and on the broad basis which we have in the past, financial support is necessary from the outside,

Other colleges, as a rule, support their general athletics from the proceeds of football or baseball games, particularly, but the opportunities at the Institute are not favorable to have Varsity Football or Baseball Teams, and, further, the Council does not feel like favoring these activities.

The treasurer's report is respectfully submitted, which shows expenditures of about \$2,250 above the amount received from the Corporation, which latter is applicable only to the care and maintenance of Tech Field.

If development and support, particularly of Basket Ball, Fencing and Hockey, are to be continued in the future, these three lines alone will increase largely the expenditure another year.

We would suggest that, though the appropriations have been liberal, the demands incident to greater development of our plans will call for even larger expenditures and hence an increase in our annual allowance.

We aim to:—

Give the students more responsibility in the management of athletics, subject to our approval.

Continue to improve the "Tech" Field.

Enhance the value of Class and Institute Athletic insignia.

Employ a trainer whose moral influence is the equal of his professional skill.

Encourage more men to participate in the intermural games.

Create greater alumni interest and support.

Constantly make toward purer intercollegiate athletics.

Your Council is of the opinion that, if Technology can, in the next few years, develop, broaden and systemize instruction in outdoor sports so that more of her graduates will leave the college physically better than when they entered and with a love and an appreciation of exercises "in the open," a distinct educational advance will be made.

We endeavor to entice "into the open" and onto the field of vigorous physical contest hundreds of young undergraduates, who need the exercise to properly complete their Institute course, and many others who are unmindful of the relation of body to mind, and who utterly fail to appreciate the necessity of a vigorous body in order to produce the best results for the highly developed mind.

It is the opinion of the Council that many men need only a word of encouragement and a bit of instruction to transform them from lookers-on



to enthusiastic participants in sport. Many such have, after three years' practice, developed from weaklings into intercollegiate point winners.

We further aim to prevent intercollegiate competitions from encroaching upon the work of the class-room, and by extending the athletic equipment give encouragement and instruction in out-of-door work to hundreds of students who, because of their inability to make the Institute Teams, have received little attention.

We further wish to encourage more general participation in winter sports, such as Hockey and Hand-ball "in the open" and to Basket-ball "indoors," in addition to Track Athletics and Cross Country Running.

Respectfully submitted by

FRANK H. BRIGGS, 1881, *Chairman*.

J. L. BATCHELDER, Jr., 1890.

J. ARNOLD ROCKWELL, 1896.

R. S. FRANKLIN, 1903, *Treasurer*.

RIDSDALE ELLIS, 1909.

H. E. WHITAKER, 1909.

J. AVERY, Jr., 1910.

#### REPORT OF THE GENERAL TREASURER

##### FOR THE YEAR 1908

##### *Receipts*

Cash on hand Jan. 10, 1908 . . . . .	\$8.99
M. I. T., 1907-08 Appropriation . . . . .	62.39
M. I. T., 1908-09 Appropriation . . . . .	1,081.09
Field Day . . . . .	702.00
Loans . . . . .	850.00
Tech Show, 1907 . . . . .	300.00
Tech Show, 1908 . . . . .	450.00
N. E. I. A. A. . . . .	495.38
Sale of Gravel . . . . .	94.75
Athletic Association . . . . .	30.00
Miscellaneous . . . . .	50.10
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	<u>\$4,124.70</u>

*Expenditures*

Labor, Tech Field . . . . .	\$588.51
Supplies, Tech Field . . . . .	536.36
Field Day . . . . .	314.50
Athletic Teams . . . . .	1,829.47
Loans . . . . .	350.00
Interest on Loans . . . . .	49.45
N. E. I. A. A. . . . .	22.50
Miscellaneous . . . . .	47.15
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Cash on hand . . . . .	\$3,737.94
	386.76
Balance . . . . .	<hr/>
	\$4,124.70

Unpaid Loans, 1907 . . . . .	\$500.00
New Loans, 1908 . . . . .	850.00
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	\$1,350.00
Loans repaid, 1908 . . . . .	350.00
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Loans unpaid . . . . .	\$1,000.00

ITEM IN TEAM ACCOUNT

Track Team . . . . .	\$503.15
Cross Country . . . . .	256.55
Fencing . . . . .	75.00
Basket-ball . . . . .	25.00
Tennis . . . . .	10.00
Hockey . . . . .	5.00
Athletic Association . . . . .	954.77
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	\$1,829.47

Respectfully submitted,

RALPH S. FRANKLIN,  
*Treasurer.*

The recommendations of the supplementary report were placed upon the table for later consideration.

The Alumni Committee on the school failed to have its report ready for the meeting.

As one of the reports was to be accepted, Mr. I. W. Litchfield moved, as a representative of the Northwestern Association, that the report be accepted. Mr. I. W. Litchfield, as representative of the Washington Society, seconded the motion. Mr. I. W. Litchfield, as representative of the Class of '85, called for the question.

The following communication from Acting President Noyes was read by President Webster:—

BOSTON, MASS., April 12, 1909.

*Dear Mr. Webster,*—I have given some thought recently to matters which might be taken up by the Alumni Council. The following ideas have occurred to me.

In the first place, it would seem desirable to have appointed a number of committees on the various departments,—at any rate on those departments which have at the present time definite problems requiring consideration. Such committees would naturally consist mainly, if not wholly, of former students of the department in question, and would naturally consult with the leading professors of the department. They might also co-operate with the corresponding Visiting Committees of the Corporation, joint meetings being held when that seems appropriate. The Executive Committee desires me to inform you that it would heartily approve of the formation of such committees.

Whether it is better that such committees be standing committees or special ones appointed to deal with specific problems is a question that the Council should consider. Provision might be made, too, for retiring one-third or one-half of the committee each year, thus insuring frequent infusion of new blood. Such committees would naturally report to the Alumni Council; and, whenever desirable, the reports, with or without additional recommendation, should be transmitted to the Executive Committee. One of the most important things of all is for the alumni to get into closer touch with the work of the Institute; and such committees would serve that purpose.

At any rate, it would seem desirable to have committees at once appointed to deal with the following important subjects:—

A camp for the surveying summer school of the Civil Engineering Department.

Instruction in refrigerating and gas-engineering by the Mechanical Engineering Department and equipment for the same.

Work and equipment of the Mechanic Arts Department.

Of the more general questions with which the Alumni Council might deal I would suggest first that provision be made for initiating and arranging plans for the alumni associations already existing throughout the country, as well as for starting new associations, securing for them speakers representing the Institute, sending the associations information about its development and needs, etc., etc. Whether this can best be handled by

the Executive Committee of the Alumni Council or by a special committee on alumni relations, the Council could best determine.

Then I would suggest the idea of promoting the foundation of scholarships for sending boys to the Institute, in connection with the important high schools of this section of the country. I spoke of the importance of this at the Alumni Banquet, and I will venture to quote here what I said:

"Another way in which the alumni can often assist on this side is to secure in their own towns the establishment of scholarships in connection with the local high schools. If, for example, there were one or more free Institute scholarships at the various important high schools in New England, we should get very soon a class of picked men of high quality. Moreover, the existence of such scholarships is of great advantage in bringing to the attention of all the pupils of such preparatory schools the opportunities afforded by an education in applied science. It is a form of benefaction, too, that appeals to many men who like to do something for the youth of their own town."

Another important matter which I hope that the Alumni Council will take in hand as soon as the location of the Institute is definitely decided on is that of student houses, to provide satisfactory living places for those of our students who are not able to join fraternities. There is a chance to make an instructive experiment in this direction by erecting two or three such houses on the Institute's land adjoining the Athletic Field in Brookline. This might well be advisable as soon as it is determined that we are to move out anywhere in that general direction, if it should be so determined.

I think that the creation of the Alumni Council will come to be regarded as one of the most important things accomplished at the Institute during the last few years, provided we can succeed in making it an effective working body; and I believe that its members will value the privilege of serving upon it just in proportion as they come to feel that they can be of direct assistance to the Institute.

Yours very sincerely,

(Signed) ARTHUR A. NOYES.

Mr. EDWIN S. WEBSTER,  
147 Milk Street,  
Boston, Mass.

VOTED, on the motion of Mr. Bemis, that the Executive Committee consider the subject of any permanent or standing committees of the Alumni Association that may be necessary or desirable, and report at the next meeting of the Council, with recommendations for amendments to the Constitution or By-laws that may be desirable in connection therewith.

VOTED, on the motion of Mr. Morss, that a special committee of three be appointed by the Chair to consider the question of establishing a camp for the Surveying Summer School of the Civil Engineering Department.

VOTED, on the motion of Mr. Morss, that a committee of three be appointed by the Chair to consider the question of instruction in refrigerating and gas-engineering by the Mechanical Engineering Department, and equipment for the same.

VOTED, on the motion of Mr. Munroe, that a special committee of three be appointed by the Chair to consider instruction in Aëronautics by the Mechanical Engineering Department, and equipment for the same.

VOTED, on the motion of Mr. Johnson, that a committee of three be appointed by the Chair to consider the foundation of scholarships for sending boys to the Institute, in connection with the important high schools in this section of the country.

The president then spoke of the need of receiving additional dues, and announced that the proportion of dues received year before last was 38 per cent., last year was 42 per cent., and this year is 45 per cent. The president requested that some action be taken by the Council toward the further payment of dues on the part of those in arrears.

On the motion of Mr. Harvey S. Chase the secretary was instructed to send the Council's request that the secretaries of the various classes be urged to communicate with the members of their classes the need of the payment of dues on the part of those who have not paid, and to call the attention of these members to the fact that twenty-five dollars paid at one time excuses the members of the Association from further payment of dues.

The following communication was read from Mr. James H. Critchett, chairman of the Institute Committee:—

BOSTON, April 20, 1909.

MR. EDWIN S. WEBSTER:

At the last meeting of the Institute Committee it was voted to ask the Alumni Council to elect a committee of three to act as an advisory committee for the Institute Committee. It is hoped by this means we can keep in touch with the alumni and make the policy of the undergraduates coincide with that of this committee.

We hope that in choosing these men the Alumni Committee will make an effort to get men who can give some time and thought to the committee's work and be interested in following it up.

Yours truly,

(Signed) JAMES H. CRITCHETT.



VOTED, on the motion of Mr. Litchfield, that a committee on student welfare, consisting of three persons, be appointed by the Chair to keep in touch with all undergraduate interests and to report on the same at the meetings of the Council, also to make such recommendations in regard to the welfare of the students as may seem wise. This committee shall act as an advisory committee to the Institute Committee and to other student activities, when requested.

The recommendation made in the supplementary report of the Advisory Council on Athletics was taken from the table, and Dr. Rockwell spoke for the Council, saying that it was the purpose of this committee to make it possible to develop physically strong men for the Institute, and it was the belief of the Council that, in doing this, it was materially helping the alumni of the school by making men who are mentally strong physically strong, and better able to represent the Institute in their professional work. He spoke of the purpose of the Council to issue season tickets for the games, thinking that this would create a greater revenue.

Mr. Litchfield supplemented Dr. Rockwell's report by speaking of the chance to call upon the loyalty of the Boston men in asking them to subscribe to these season tickets and to support the games of the Institute as do alumni of other colleges.

VOTED, on the motion of Mr. Coburn, that the supplementary report of the Advisory Council on Athletics be referred to the Committee on Student Welfare just appointed.

The president of the Association ruled that the existence of the Alumni Committee on the School ceased upon the presentation of its report. Professor Winslow remarked that he thought such action undesirable in view of the fact that this committee had formed a very convenient channel through which the members of the Institute Faculty can reach the alumni, and that it was desirable to have such a committee go through the Institute each year to see exactly what is being done. The Chair called attention to the fact that these committees just appointed would in their work visit the Institute, and, as needs were brought to the attention of the Council, additional committees could be appointed. Mr. Little, of the Class of '85, suggested that the chairmen of all these committees might form a Committee on the School.

VOTED, on the motion of Mr. Coburn, that this question await the action of the special committee.

The following communication was read from the Class of '89 in regard

to the eligibility of members of the School of Mechanic Arts to membership in the Association:—

The Class of '89 desires to suggest to the Council of the Alumni Association the desirability of accepting as associate members of the M. I. T. Alumni Association former students of departments associated with or under the general direction of the Massachusetts Institute of Technology, such as the School of Mechanic Arts, the special course in architecture, and the Lowell School of Design.

FEB. 1, 1909.

Mr. Bemis questioned the constitutionality of such a request. Professor Tyler spoke of the decision on this question when he was a member of the membership committee of the Association, and that, while he was in sympathy with this request made by this group of strong men, he failed to see how, under the present constitution, such a request could be granted.

During the discussion following it was the sense of the meeting that, should such a request be granted, a similar request might be raised by the Lowell School of Design, and, should the present Lowell School of Industrial Foremen cease, a similar request from them might be raised, in view of the fact that members of both of these schools have received instruction within the walls of the Institute. As such a condition seemed undesirable, the question was by vote laid upon the table.

Acting President Noyes spoke on the question of a site for the Institute, stating that what he should say was not definite nor was it final, but he did assure the Council that almost every one felt now that it was desirable that the Institute should move and rebuild. There is no uncertainty in regard to the policy that, when we move, no district remote from the city should be chosen, that the Institute should retain its close contact with the city, that a site not greater than two or three miles from the centre of the city should be chosen. The present consideration does not concern a special site in view of the fact that the question of funds was the first to be determined, because any site involves the expenditure of from \$700,000 to \$1,000,000. Before the step is taken, a large per cent. of this amount should be in sight, and at present the great problem is that of raising funds. Substantial assistance has already been promised by some prominent alumni, and the search for funds will be continued. It is interesting and gratifying to realize that Dr. Maclaurin has adopted this idea and wishes to carry it on.

Mr. Litchfield, as secretary of the Reunion Committee, reported that

great progress had been made in preparation of the final plans for the Reunion, and that it looked now as if many people, unless they soon indicated their desire to attend the various functions, would have to be excluded at the last moment from those functions that must be prepared for a certain number. Already one thousand have indicated their desire to attend the Pop Concert, eight hundred have applied for tickets to the banquet, twelve hundred have indicated their intention to attend the Smoker, and three thousand to take the excursion to Nantasket. Notices will probably be sent out again May 20 or 22. It is interesting to note that on the various committees there are as many as seventy-five of the alumni.

Mr. Litchfield suggested that the various classes appoint a marshal for the Pop Concert, in order that there might be less noise than formerly on account of the large attendance, and of the desirability of these marshals restraining the various classes from too enthusiastically and noisily provoking attention.

Mr. H. A. Rapelye ('08) spoke of the need of establishing a research laboratory of engineering. He reminded the Council that the term of annual payment of \$25,000 a year on the part of the Commonwealth to the Institute would soon expire, and that the Institute would need to make another request. In connection with this more benefit could be shown to the Commonwealth if such an engineering laboratory of research could be developed.

VOTED, on the motion of Mr. Rapelye, that a committee of three be appointed by the Chair to consider the question of the development of a research laboratory of engineering.

Mr. Francis C. Green ('95), representative of the Technology Club of New York, presented the compliments of the New York Society to the Council, and spoke of the club house which has just recently been obtained by the New York Society in Gramercy Park. He spoke also of their renewed prosperity and of their comfortable quarters just obtained.

Mr. Bemis asked for information in regard to the maintenance of the Rogers Memorial Scholarship Fund. Professor Richards, trustee, responded, and explained how the fund had been established and how it had been maintained, and how the faculty committee on undergraduate scholarships awarded assistance to the undergraduates. Requests were made by members for further information, and Professor Richards stated that he regretted that more had not repaid the amounts already loaned,

and he showed that, had more repaid promptly, more undergraduates could have been assisted.

The president, Mr. Webster, at this moment threw the meeting open for any further new business and for general discussion. He invited communications from the various delegates now and also before the next meeting.

The meeting adjourned at 9.40 P.M.

WALTER HUMPHREYS,  
*Secretary.*

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In accord with the vote of the Council the following special committees have been appointed:—

Committee on Summer School of Surveying:—

Leonard Metcalf, '92, *Chairman*.

F. H. Fay, '93.

A. F. Bemis, '93.

Committee on Aeronautics:—

Henry Howard, '89, *Chairman*.

Henry Morss, '93.

Hon. Butler Ames, '96.

Committee on Student Welfare:—

Dr. A. A. Noyes, '86, *Chairman*.

Howard L. Coburn, '98.

G. D'W. Marcy, '05.

Foundation of Scholarships:—

Professor C.-E. A. Winslow, '98, *Chairman*.

James P. Munroe, '82.

Linwood O. Towne, '78.

NEW ASSOCIATE MEMBERS

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The following former students were elected associate members of the Alumni Association on the dates indicated:—

Jan. 7, 1908: Hon. Guy W. Currier, '88.

Feb. 18, 1908: William L. Benedict, '80; J. Frank Blackie, '04; Ernest A. Bragg, '98; Frank Cushman, Jr., '01; Firmin V. Desloge, '02; Charles W. Ewart, '02; George F. Fisk, '01; Edwin F. Hicks, '94; Neidford H. Houghton, '87; Anthony M. Robeson, '94; Fred I. Tucker, '00; Channing M. Wells, '92; and George N. Wheat, '04.

March 17, 1908: Ralph B. Fay, '05; Arthur G. Fogg, '86; George Fuller, '05; Edgar L. Hill, '05; Eugene Lombard, '05; Clarence A. Lord, '05; Robert F. Luce, '05; Roland A. Perry, '05; Halsey R. Philbrick, '06; Ralph W. Reynolds, '88; Samuel Shapira, '05; Henry B. Siebrecht, '05; Alton P. Trufant, '01; and Waldso Turner, '05.

April 14, 1908: Robert H. Doepke, '06; James F. Fouhy, '06; Arthur H. Howland, '05; Leonard F. Myers, '03; Herbert F. Otis, '84; John S. Small, '98; and Clifford R. Wilfley, '06.

May 12, 1908: Ogden R. Adams, '06; Fritz C. Bickford, '05; Percy J. Colvin, '07; George Jason, Jr., '05; William F. Kimball, '07; Thomas F. McDonnell, '02; Benjamin Madero, '06; Ernest A. Miner, '07; Frank F. Phinney, '93; John L. Richter, '07; and Philip B. Walker, '07.

Sept. 22, 1908: Ernest S. Altgelt, '07; Nathaniel B. Buxton, '91; Edward S. Chase, '06; Earl G. Christy, '06; Edmund P. Collier, '78; Howard S. Denham, '03; Nathan J. Gibbs, '06; James E. Griffin, '06; Philip S. Harrison, '06; George F. Hiller, '98; Thomas J. Holmes, '07; Isa W. Kahn, '06; Roy G. Kennedy, '06; Samuel A. Kephart, '07; Henry M. Lewis, Jr., '07; James J. Mahler, '07; Henry C. MacRae, '07; Howard J. Morton, '07; George W. Otis, '07; Edward B. Pollister, '06; Wear L. Rowell, '06; Herbert A. Stevens, '07; and William F. Walker, '06.

Nov. 23, 1908: Burton A. Adams, '98; Arnold W. Heath, '08; Henry W. Hoole, '08; Alfred R. Hunter, '08; Walter Large, '79; J. Albert Robinson, '02; and Stanley M. Udale, '07.

Dec. 8, 1908: George W. Francis, '04.



Jan. 25, 1909: William A. Adams, '08; Douglas Cairns, '08; John H. Draper, '04; Alexander Ellis, '08; Hubert W. Flaherty, '08; Chester A. Hoefler, '06; George L. Hosmer, '97; Percy L. Handy, '08; William P. Monahan, '07; Chadwell S. Peirce, '06; Frederick G. Perry, '08; Montgomery Rollins, '89; Edward J. Scott, '08; Ishmar das Varshnei, '06; Allen T. Weeks, '08; and Charles W. Whitmore, '08.

Feb. 18, 1909: Clinton C. Barker, '07; Everett J. Beede, '08; Carroll C. Curtis, '05; Edward Kloborg, '08; E. A. Northey, '90; Eugene E. Peirce, '89; Frank L. Pierce, '89; Arthur E. Skillings, '08; Arthur C. Winch, '08; and Charles F. Wray, '96.

March 16, 1909: John C. Abbot, '93; John C. Abbott, '86; Leon M. Abbott, '89; Professor Charles L. Adams, '84; William A. Adams, '08; William H. Adams, '91; Winthrop Alexander, '83; Annie E. Allen, '94; Anson W. Allen, '85; Frank D. Allen, '02; L. Mabel Allen, '00; Mark W. Allen, '96; Robert P. Anderson, '99; George R. Anthony, '98; Arthur B. Appleton, '08; Colonel Francis H. Appleton, '71; K. Asano, '01; Louis H. Asbury, '04; Richard C. Ashenden, '07; Albert C. Ashton, '89; Franklin G. Ashton, '93; George T. Atkinson, '92; George C. Avery, '76; Paul A. Babcock, '00; William S. Babcock, '83; Charles J. Bacon, '01; Mrs. Richard P. Baer, '86; George W. Bailey, '08; Henry H. Bailey, '89; Warren S. Baker, '08; Francis D. P. Balch, '93; James C. T. Baldwin, '88; William E. Barbour, '96; Jules V. Barnd, '05; Rowland H. Barnes, '91; Willard C. Barnes, '03; George S. Barrows, '93; Edward W. Bartberger, '02; Sarah L. Bates, '02; Edw. S. Baumaun, '93; Jesse B. Baxter, '93; Benjamin L. Beal, '75; Mart A. Beal, '82; William M. Beaman, '89; William F. Becker, '05; James L. Belser, '88; Harold A. Besse, '02; Harold Binney, '88; Donald McL. Blair, '88; Henry W. Blake, '88; Howard C. Blake, '06; John Blodgett, '88; Marion G. Boland, '05; Ignacio Bonillas, '84; James E. Borden, '90; Walter L. Bouve, '74; Mrs. Archer C. Bowen, '03; Daniel H. C. Bowers, '04; James C. Boyd, '93; Perkins Boynton, '01; Charles O. Bradford, '76; Franklin E. Bragg, '97; J. T. Norwood Braithwaite, '88; Charles H. Breck, '70; Carl Brewer, '07; Charles H. Brigham, '04; J. S. Bronson, '01; Charles B. Brooks, '73; C. A. Brown, '85; C. L. Brown, '88; E. L. Brown, '89; Jacob W. Brown, '93; Ralph G. Brown, '91; Sarah A. Brown, '89; William H. Brown, '02; Miss Barbour Bruce, '02; Dr. Thomas K. Bruce, '87; Arnold W. Brunner, '79; Riggin Buckler, '08; Harold C. Buckminster, '95; B. D. Bumstead, '93; S. Clayton Burkett, '08; Silas R. Burns, '80; Arthur M. Burr, '93; Walter M. Butts, '05; Ernest W. Calkins, '04; Jeremiah Camp-

bell, '91; J. W. Campbell, '96; Carroll A. Capen, '97; Guy Carleton, '95; Rose A. Carrigan, '99; Charles T. Carruth, '73; Charles J. Carter, '08; James W. Cartwright, Jr., '89; Rodney C. Caryl, '08; Charles A. Catlin, '94; Noel Chamberlin, '04; B. L. Chandler, '84; Charles J. Chapin, '97; Mabel H. Chapin, '94; Evarts W. Charles, '04; A. M. Chuchian, '06; Percival M. Churchill, '95; William Y. Chute, '92; Clifford B. Clapp, '02; George H. Clapp, '03; Gustavus Clapp, '95; John C. Clapp, Jr., '93; Prescott J. Clapp, '06; Charles H. Clark, '91; Walter A. Cleaveland, '98; Ezra E. Cleaves, '97; Henry W. Clement, '90; Fred W. Coburn, '96; Charles W. Coffin, '07; Charles N. Cogswell, '92; Herbert A. Cole, Jr., '08; George S. Coleman, '08; William A. Conant, '88; Emma O. Conro, '84; M. W. Cooley, '87; Herbert Coolidge, '71; Stephen E. Coombs, '87; Frederic G. Corser, '78; David H. Cowell, '01; Allen H. Cox, '98; Frederick S. Cram, '08; Jasper E. Crane, '04; Robert F. Crary, Jr., '04; Andrew W. Crawford, '96; Harry R. Crohurst, '07; Charles M. Culp, '01; George A. Curtis, '04; Mrs. G. S. Curtis, '00; Henry R. Curtis, '80; T. P. Curtis, '94; George W. Cutting, Jr., '00; Herbert Dabney, '75; Alice E. Daly, '02; Herbert F. Daly, '02; Leslie Dana, '94; Elmer A. Darling, '72; Cyrus V. Dart, '00; James F. Davenport, Jr., '85; Charles W. Davis, '96; Frank I. Davis, '92; Leon H. Davis, '06; Lorenzo M. Davis, '70; Fred B. Dawes, '98; Stephen Decatur, '77; Robert M. Derby, '01; Leo J. Devlin, '05; Dwight Dickinson, Jr., '08; Alice N. Dike, '03; F. Eugene Dixon, '06; John W. Dodd, '98; Harry W. Donald, '05; Frank G. Dort, '81; John Dove, '95; G. W. Drach, '83; Frank Drake, '94; Charles H. Drew, '06; Hugo William Druehl, '03; James C. Dryer, '99; William M. Duane, '89; Kinsley Dunbar, '89; Emmet Dwyer, '05; John Dyer, Jr., '95; George E. T. Eager, '02; Alan F. Edge, '09; A. B. Edwards, '93; George B. Elliot, '74; Richard O. Elliot, '96; Herbert A. Ellis, '08; Walter Ellis, '90; Charles H. Ely, '98; Carleton M. Emerson, '06; Guy C. Emerson, '90; Joseph I. Estes, '76; A. H. Eustis, '03; D. Howard Evans, '00; Joseph D. Evans, '01; Arthur G. Everett, '77; Charles W. Ewart, '02; Charles G. Ewing, '08; Charles R. Faben, '07; Warren E. Fairbanks, '77; William K. Fairbanks, '97; John H. Fallon, '72; John G. Faxon, '88; Harry F. Fay, '71; Arthur E. Feeley, '06; Amedeo L. S. Ferrandi, '08; Percy R. Finer, '04; George E. Fisher, '98; Harry E. Fisher, '07; George F. Fisk, '01; Robert F. Fisk, '70; Redington Fiske, '85; Charles N. Fitts, '91; Howard H. Flagg, '05; Charles E. Fleming, '98; Henry V. Fletcher, '06; Mrs. Londa S. Fletcher, '93; Arthur G. Fogg, '86; A. Prescott Folwell, '88; Lyman A.

Ford, '89; William H. Foster, '04; Frederick N. Fowler, Jr., '02; Henry A. Francis, '83; R. S. Franklin, '02; Matilda A. Fraser, '99; Horace S. Frazer, '85; Frank W. Friend, '07; William P. Frink, '86; Arthur B. Frizell, '88; Clarence E. Fuller, '93; H. B. Fullerton, '79; Frederick B. Gaenslen, '91; Albert L. Galusha, '01; James A. Gammans, '88; Charles H. Gardner, '87; George C. Gardner, '86; Thayer P. Gates, '02; Albert Geiger, Jr., '95; Harry A. George, '02; Elmer L. Gerber, '99; Lyman L. Gerry, '82; William F. Gerry, '04; Dr. Thomas J. Giblin, '85; Samuel E. Gideon, '06; Clarence D. Gilchrist, '93; George B. Glidden, '93; Albert S. Glover, '77; Carl E. Goldthwait, '08; George F. Goodnow, '88; William F. Goodwin, '04; Albert S. Gottlieb, '02; Dr. Anna M. Gove, '91; Mrs. H. C. Grant, '95; James D. Grant, '08; Harold S. Graves, '99; W. D. Gray, '06; George M. Greene, '03; Joseph T. Greene, '86; S. Cuyler Greene, '85; William F. Grimes, Jr., '08; Irving T. Guild, '88; James R. Guy, '98; Charles E. Haberstroh, '74; Edward W. Haddock, '02; Isaac T. Haddock, '03; Charles A. Haigh, '91; Charles H. Hall, '96; Frank R. Hall, '71; Gaylord C. Hall, '96; Melville B. Hall, '08; Prescott F. Hall, '89; Ralph H. Hall, '07; Ralph N. Hall, '07; Frank E. Hamilton, '07; H. G. Hammett, '84; Newton L. Hammond, '08; James O. Handy, '88; Herbert F. Hanson, '83; Lyman P. Hapgood, '99; Karl S. Harbaugh, '95; George C. Harding, '89; Susan J. Hart, '90; William S. Hart, '00; Herbert W. Harvey, '06; Philip Harvey, '90; Arthur N. Hastings, '05; George F. Hatch, '97; R. E. Havens, '04; John C. Hawley, '93; Lloyd B. Haworth, '02; Fred L. Hayden, '98; Albert A. Hayward, '06; Edward B. Hayward, '84; William A. Hazard, '99; Isaac B. Hazelton, '97; Sumner Hazelwood, '01; John F. Heckman, '03; Daniel C. Hemingray, '79; John William Henkelman, '94; William T. Henry, '70; Franklin Henshaw, '88; Nathaniel G. Herreshoff, '70; Arthur H. Herschel, '99; Ira G. Hersey, Jr., '08; Herbert E. Hewitt, '94; Edwin F. Hicks, '94; Francis William Hight, '93; Herbert V. Hildreth, '85; Herbert W. Hill, '07; James L. Hillard, '70; Haven J. Hilliard, '96; J. P. Hinckley, '07; P. R. L. Hogner, '06; B. E. Holden, '94; Mary C. L. Holman, '92; Charles L. Holmes, '88; John M. Hood, Jr., '01; Henry D. Hooker, '84; Stanley A. Hooker, '97; George K. Hooper, '91; Walter A. Hopkins, '06; Walter A. Hotchkiss, '06; Henry Howard, '89; Sheldon L. Howard, '97; Henry S. Hubbell, '06; John H. P. Hughart, '75; Andrew W. Hull, '07; Arthur K. Hunt, '85; William F. Hunt, '93; William B. Hunter, '08; Edmund J. B. Hunttoon, '89; Arthur W. Huse, '98; Russell T. Hyde, '08; Roger P. Ingalls, '05; George O. Jackson, '99; Sidney V. James, '08; Herbert Jaques, '77; Alfred C.

Jennings, '01; L. B. Jennings, '00; Charles H. Johnson, '05; O. A. Johnson, '07; Bassett Jones, Jr., '99; Henry S. Josselyn, '78; L. Joseph Joyce, '90; Walter T. Keen, '04; Alfred N. Kelling, '05; John F. Kelly, '98; F. A. Kendall, '87; Henry H. Kendall, '76; Carl W. Keniston, '08; Richard Y. Kennard, '08; Herbert W. Kenway, '05; Andrew Kerr, '06; Warner H. Kiefaber, '08; Fred M. Kimball, '85; James L. Kimball, '85; William F. Kimball, '07; James C. Kimberly, '94; Edmund W. Kingsbury, '85; F. J. Kingsbury, '86; Walter B. Kirby, '07; Guy Kirkham, '87; Alfred J. Krafft, '07; Elmer J. Krafft, '08; Florian L. Lacroff, '99; Florence M. Lughton, '93; Minerva A. Laing, '98; Henry W. Lamb, '74; Frank H. Langworthy, '05; John Laval, '85; Arthur W. Lawrence, '05; Charles M. Lawrence, '94; Mark A. Lawton, '83; George H. Leach, '00; William H. Leathers, '03; Fred. C. Lebenbaum, '06; Francis W. Lee, '74; William T. Leman, '73; Frank E. Levanseler, '71; Dr. Ernest C. Levy, '04; Hortense W. Lewis, '00; Ion Lewis, '78; M. Lichtenstein, '06; Laura A. Linton, '84; James L. Little, Jr., '00; Philip Little, '79; W. T. Littlefield, '92; Horace G. Lobenstine, '92; Rhodes G. Lockwood, '97; Richard W. Lodge, '79; Alfred W. Lombard, '98; Moses J. Look, '92; Emil Lorch, '93; Frederic W. Lord, '94; Arthur C. Lotz, '93; Joseph P. Loud, '87; Elmo C. Lowe, '05; H. R. Lowry, '04; George F. Luce, '84; Leroy W. Luce, '07; Frank E. Ludington, '08; William J. Luther, '84; Frank Lyman, '75; John T. Lyman, '85; Lewis J. Lyman, '05; Harry M. Lynde, '05; A. McColl, '87; F. M. McCombs, '79; Henry M. McCue, '06; Frank A. McDonald, '90; Herbert D. McKibben, '06; George W. Maloy, '73; W. Harry Mandeville, '99; Henry Manley, Jr., '02; Chauncey P. Manning, '02; Albert K. Mansfield, '73; G. M. Mansfield, '74; Albert T. Marshall, '93; John R. Marston, '04; Waldo A. Martin, '90; Elizabeth S. Mason, '93; Willis H. Mason, '08; J. L. Mauran, '89; Ruth Maxwell, '08; John E. May, '89; Amy B. Maynard, '84; Edwin B. Mead, '99; Ernest E. Mead, '96; William H. Medlicott, '08; John A. Meggison, '05; Marshall G. Meriam, '05; Arthur P. Merrill, '01; Frank A. Merrill, '87; Winthrop N. Messenger, '06; Edward N. Milliken, '98; Harold W. Mitchell, '05; Albert V. Moller, '00; John F. Montgomery, '73; Frederick C. Moody, '90; Walter S. Moody, '87; Ernest B. Moore, '88; George Moore, '93; George D. Moore, '88; Lewis E. Moore, '02; Richard H. Morgan, '79; John M. Morris, '06; William L. Morris, '99; Charles W. Morrison, '08; George A. Morton, '76; Charles H. Mower, '88; John J. Mullen, '08; William J. Mullins, '85; Oscar Munyan, '81; George L. Munn, '88; James W. Nagle, '96; Theodore Nelson, Jr., '04; Ralph H.

Nesmith, '05; Joseph P. Newell, '88; George H. Norris, '84; Reginald Norris, '96; Herbert W. Northey, '87; Mrs. Lewis M. Norton, '96; Edmund H. Noyes, '92; George H. Nye, '85; J. A. C. Nyhen, '03; George A. Orrok, '89; Christel Orvis, '70; Josiah A. Osgood, '70; Ambrose Packard, '92; Morris V. Paddock, '04; Frank N. Page, '85; Mary H. Page, '88; Alden R. Palmer, '93; Howard S. Palmer, '07; Mary T. Palmer, '84; Charles H. Parker, '84; Horatio N. Parker, '94; Dalton Parmly, '93; Nathaniel K. B. Patch, '02; Normand S. Patton, '75; Arthur H. Pearson, '70; Edward G. Pease, '93; Harold D. Peat, '07; William C. Peet, '94; Eugene E. Peirce, '89; Earl R. Pembroke, '03; Henry B. Pennell, '90; Thomas T. Perkins, '96; Walter G. Peter, '90; Theodore W. Pietsch, '89; Henry S. Pitts, '04; William G. Plumer, '90; Charles H. Pope, '97; Harold L. Pope, '02; Edward A. Porter, '93; Edward C. Potter, '80; Alfred S. Pratt, '84; Nathan R. Pratt, '91; Edwin M. Price, '08; William H. Punchard, '91; Charles S. Rackemann, '78; John H. Rankin, '89; William H. Rea, '79; Benoist S. Redd, '88; William P. Regan, '87; Arthur T. Remick, '06; Edward Renouf, '70; Francis V. Reyburn, '08; Arthur W. Rice, '91; Isaac Rich, '78; Lamont Rich, '98; Henry Richards, '71; F. B. Riley, '05; George A. Robinson, '99; John T. Robinson, '98; Thomas P. Robinson, '99; George H. Rodd, '07; R. Roger-Marvaize, '96; Howard L. Rogers, '93; Henry P. Rolfe, '97; Norman P. Rood, '99; Walter F. Roper, '02; Ralph R. Rumery, '98; John C. Runkle, '88; Dr. Scott C. Runnels, '05; M. S. Ryder, '91; E. O. Saltmarsh, '69; Thomas H. Sampson, '74; Edward H. Sargent, '07; Harry J. Sargent, '07; Ralph E. Sawyer, '97; Henry H. Saylor, '02; William E. Scales, '92; Richard E. Schmidt, '87; D. C. Schonthal, '05; Robert A. Schumucker, '08; Elmer Schwab, '74; John T. Scully, '01; B. Hammett Seabury, '79; Francis P. Sears, '90; George G. Sears, '84; Francis L. Sellew, '07; Henry R. Sewell, '08; Herbert H. Sharp, '83; Alfred V. Shaw, '96; Howard V. Shaw, '93; E. R. Sheak, '99; J. M. A. Sheldon, '81; Horace B. Shepard, '75; Frank I. Sherman, '77; John L. Shortall, '87; Edwin A. Shuman, '86; F. S. V. Sias, '95; George E. Sibbett, '03; James F. Sickman, '98; Clark D. Simonds, '04; Fred W. Simonds, '05; Joseph H. Sinclair, '08; Hans W. L. Sjostrom, '96; Lemuel D. Smith, '06; Paul D. Smith, '96; Theodore L. Smith, '07; Frank A. Smythe, '89; Frank W. Snow, '98; Louis A. Sohier, '99; William D. Sohier, '78; Benjamin D. Solomon, '03; Kaludy Spalding, '89; Charles S. Sperry, Jr., '04; Russell T. Starr, '96; Elwyn W. Stebbins, '93; Ralph G. Stebbins, '06; E. F. Stevens, '83; Louisa B. Stevens, '07; Charles J. Stevenson, '07; Edmund T. Stewart, '99; Charles A. Stickney,



'98; George W. Stone, '89; Edward C. Story, '08; Paul D. Swartz, '06; J. Charlotte Swinson, '00; George G. Symes, '07; Arthur W. Talbot, '06; Dr. Alice W. Tallant, '98; Wilbert C. Tandy, '99; A. T. Taylor, '95; Lieutenant Brainerd Taylor, '99; Eugene H. Taylor, '78; G. Wood Taylor, '90; John H. Taylor, '07; Lawrence M. Thacher, '86; Charles S. Thomas, '02; William B. Thomas, '94; William R. Thomas, '87; Harry H. Thorndike, '93; Leroy L. Thwing, '03; Osmon B. Tilton, '86; Thomas Todd, Jr., '99; J. A. Trott, '01; Edgar A. Turner, '08; Herbert Tutweiler, '06; John D. Underwood, '98; Joseph McA. Vance, '91; William W. Varney, '86; Thomas M. Vinton, '97; Clifford L. Wade, '08; J. S. Wadsworth, '93; Frank H. Wakefield, '84; William Q. Wales, '72; Frank R. Walker, '00; Harriet A. Walker, '82; Emil A. Wallberg, '92; James L. Walsh, '07; William H. Warnock, '05; Herbert L. Warren, '79; Charles D. Waterbury, '95; Charles P. Waterman, '03; Irville D. Waterman, '02; Laurence J. Webster, '93; Lester S. Weeks, '08; Marion M. Weeks, '99; Rev. George F. Weld, '90; Frank A. Werner, '99; Leonard Wesson, '00; William E. West, '99; Mrs. W. B. Whaley, '88; Daniel M. Wheeler, '68; Milton M. Wheeler, '94; Charles B. Wheelock, '77; Leyland C. Whipple, '04; Laura B. White, '79; William W. White, '06; Warren M. Whiting, '69; Harrie L. Whitney, '05; Samuel A. Whitney, '86; Samuel S. Whitney, '68; William S. Wicks, '76; Bryant Willard, '91; John F. Willard, '76; Jay W. Williams, Jr., '06; Mrs. Sydney M. Williams, '06; Richard W. Wilson, '08; Winslow A. Wilson, '95; Henry T. Winchester, '03; Paul Winsor, '86; James C. Wolfender, '07; Ellis G. Wood, '05; Frederic J. Wood, '88; Charles J. Hill Woodbury, '73; W. H. Woodfindale, '92; Elizabeth J. Woodward, '81; George H. Wright, '98; James H. Wright, '95; Vernon A. Wright, '90; William H. P. Wright, '06.

April 23, 1909: Edward E. Bennett, '07; John R. Brittain, '93; George A. Clark, '01; W. H. Dawes, '85; A. S. Douglass, '08; W. Stillman Dutton, '91; Ralph L. Dyer, '06; Sidney S. Emery, '93; Frederic E. Everett, '00; Horace F. Farnham, '99; Lucius W. Godfrey, '00; Percy F. Goodwin, '01; Rudolf F. Haffenger, Jr., '95; Lawrence C. Hampton, '07; Walter J. Heinritz, '01; Charles L. Homer, '04; Walter T. Hoover, '07; Edwin W. James, '07; Charles J. Lincoln, '84; Charles M. Luce, '07; Robert F. Luce, '05; Frederick D. Mabrey, '04; Angus A. McInnes, '01; Edgar L. Meyer, '05; William D. B. Motter, Jr., '05; Edward M. Norcross, '76; Frederick N. Peirce, '08; Charles A. Raymond, '07; Maurice F. Richardson, '99; Leonard E. Schlemm, '03; Herman R. Simmons, '04; Walter B. Small, '07; Charles H. Stebbins, '04; James P. Stow, Jr., '07; Robert

W. Swift, '95; Robert K. Taylor, '07; William A. Tracy, '08; U. Tsukakoshis, '07; Herbert Vanderhoof, '99; Philip Wadsworth, '04; F. E. Woodbury, '89; Ira V. Woodbury, '06; Royal B. Young, '87; and A. G. Zimmermann, '94.

July 12, 1909: Leon L. Allen, '07; Joshua Atwood, 3d, '92; Roland Bailey, '94; Edgar H. Barker, '96; Maurice Bredin, '06; Chester A. Butman, '05; Charles S. Cole, '03; John W. Conover, '07; Warren F. Currier, '03; J. Linfield Damon, Jr., '91; John Donaldson, '07; Clement J. Dore, '08; William N. Dudley, '92; Michael J. Gibbons, Jr., '06; Francis B. Groover, '07; Henry L. Johnson, '92; Ralph J. Karch, '08; Z. H. Long, '98; Daniel M. Luelns, '06; Wallet G. Pfeil, '08; N. G. Robertson, '85; Charles F. Runey, '07; George H. Shaw, '04; Francis F. H. Smith, '93; J. W. Stearns, '87; Theodore H. Stramblad, '05; Fred A. Thomas, '87; Frank Toohey, '03; Frank F. Tripp, '87; Herbert L. Wardner, '93; William Waterman, '02; W. Elliot Weinz, '08; Joseph B. White, '89.

Sept. 28, 1909: Arthur R. Childs, '02; Frank L. Connable, '93; Clifford F. Crosby, '89; Frederic B. Menner, '07; Raymond W. Parlin, '08; Samuel F. Rosenheim, '93; and Joseph F. White, '93.

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### Tech Men are Interested

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The Register of the Society for the Promotion of Engineering Education published in April shows a membership of 675 against 503 a year ago. Among the 116 colleges and universities represented in the membership of the society, the Institute stands easily first with 37 members, or 16 more than last year. The University of Illinois comes second with 24; Ohio State University, third with 22; the University of Minnesota, fourth with 20; followed by Wisconsin with 18, Purdue with 17, etc. Among other New England institutions, Worcester has 11; Yale, 11; Brown, 8; Harvard, 7; Tufts, 6; Vermont, 6; the Thayer School at Dartmouth, 3; New Hampshire College, 2; University of Maine, 2, etc.

MISCELLANEOUS CLIPPINGS

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Here's a Scotch welcome to President Maclaurin of the Massachusetts Institute of Technology. Boston greets heartily this accomplished Scotchman who, to a thorough university equipment, has added a knowledge of men and affairs in various parts of the world,—the best possible preparation for the responsibility he assumes. The new president comes to us with the highest indorsements as an educator and a man who will be a great acquisition to the intellectual and political life of Boston.

There are many technical schools, but only one "Tech," which is no place for the mollicoddle or the idler who esteems a college degree because it looks well to hang up on a study or office wall, but too often is of little value in measuring the educational equipment of the person whose name it bears. A "Tech" diploma means hard work, something accomplished, the survival of the fittest. If a man holding it does not make good in life, it is not the fault of the Institute.

Better than any other people the Germans know a good technical school when they see it, and there is no place of learning in the United States more highly respected in Germany than the school on Boylston Street, which is turning out the kind of men the nation needs to meet the commercial requirements of an age that demands specialized skill,—the trained engineers, chemists, directors armed with the last-discovered secret of science and the last-uttered word concerning industrial progress and methods demanded by our time.

It will not be many years before every state will have its schools patterned after Boston's "Tech," but under the new president we are confident it will continue to remain what it is today, the first and the best.—*Boston Traveller*, June 8.

With the opening of the academic year this fall Dartmouth College and the Massachusetts Institute of Technology will each have a new president. Dr. Richard C. Maclaurin has already been inaugurated as the head of the Institute. Dr. Ernest Fox Nichols has been elected to succeed Dr. Tucker at Dartmouth, and is ready to take up his task. At the time of their election the *Outlook* gave an account of the career of each,—of Dr.

Maclaurin last November and of Dr. Nichols in June. It is an interesting coincidence that both men have been called from the Department of Physics in Columbia University, New York. They are both well under middle age, Dr. Nichols being forty years old and Dr. Maclaurin a year or so younger. Both, moreover, have won considerable distinction by their work in abstract science,—Dr. Maclaurin in mathematical physics and Dr. Nichols in experiments of such delicacy as those involved in measuring the heat that comes from distant planets. At Columbia both these men belonged to the Faculty of Pure Science. They are, in the strictest sense of the word, scientific specialists.

It is certainly extraordinary that two educational institutions of New England, which for months have been searching for men of practical efficiency, wide culture, and grasp on complex educational problems as administrative heads, should finally decide that they had found them among specialists in pure science. Although it is not surprising that a technical school should choose a scientist as its president, it is unusual that it should choose a man whose achievements lie in the domain not of applied but of abstract science, and it is the more so since the Massachusetts Institute of Technology has based its curriculum on the belief that a technological training can be accompanied with education for culture. And, if the action of "Tech" is unconventional, certainly that of Dartmouth, in which the arts course is central, is still more unconventional.

The fear has often been expressed that specialization in study, which has become more and more common, will make impossible the development of men of broad interests. In particular the growth in importance of scientific studies in comparison with the old "humanities" has been accepted as a sign of the disregard of the finer elements in civilization. A great many people have honestly felt that our whole college system was becoming materialized, dehumanized, hardened and narrowed, because to a great degree students were choosing to follow special lines of scientific study. In place of the old ideal of the cultivated mind there has seemed to many to be obtruding the ideal of a narrow mind intent on a minute field of knowledge and oblivious of the great areas of human feeling and experience.

The fact that such men as Dr. Nichols and Dr. Maclaurin have found the experience of the specialist good training for a position requiring breadth of mind and knowledge of men is significant. It indicates that the traditional course in the "humanities" is not the only means for the cultivation of the mind.

Certainly, modern science fosters certain high qualities of mind that the

older studies could not develop. Accuracy, impartiality, absolute sincerity, open-mindedness and patience are some of the qualities which must grow in a man through habits of scientific research. Moreover, scientific study, when properly pursued, must stimulate the creative imagination and must nourish that adventurous spirit which is one of the finest traits of the race, one that profits as truly as any other trait by the process of education. And surely nothing more amply rewards the love of learning than the results of intelligent and laborious scientific study. Even in the days that now seem to belong to antiquity, from the time of the Magi to the time of Faust, natural science was an abode of scholars. Even in these days there is nothing absolutely novel in the fact that science produces men of cultivation. Mr. Eliot, who has just laid down the presidency of Harvard, stepped into his place of leadership from a chair of analytical chemistry. Nevertheless, the place which science may have and is coming more and more to have in general education is newly and strikingly exemplified in these two recently chosen college presidents.—*The Outlook*.

The American college commencement season this year has been notable for new college presidents. At Harvard Dr. Lowell was beginning his administration, though his formal inauguration will not take place till next October; at Dartmouth, just before the closing days of the college year, there was announced the election of Professor Ernest Fox Nichols as successor to Dr. Tucker; at Union College, Schenectady, a new president was inaugurated,—the Rev. Dr. Charles Alexander Richmond; at the Massachusetts Institute of Technology, the inauguration of Professor R. C. Maclaurin. Of these four, only one comes to the college presidency by the traditional way of the ministry. Of the other three, two have attained an extraordinarily high standing in the realm of pure science.

Dr. Maclaurin was born in Scotland, brought up in New Zealand, educated in English schools and at Cambridge University. He became professor of mathematics at Wellington, New Zealand, and was afterward made a trustee of the University of New Zealand. He has the rare distinction of being a prize winner at Cambridge in two such separate subjects as law and mathematics. It was, therefore, not at all inexplicable that he became in time dean of the Law Faculty.

Dr. Nichols' career has been also unusual. He was born in Kansas and received his Bachelor's degree (that of Bachelor of Science) at Kansas Agricultural College. He studied later at Cornell, from which he received both the Master's and the Doctor's degree in Science. He has won great distinction in the scientific world by his success in measuring planetary light and heat.



Both of these men go to the college presidency from the faculty of Columbia University, and, as it happens, both of them, at the time of their election to the presidency, occupied chairs in physics. Dr. Maclaurin was professor of mathematical physics and Dr. Nichols was professor of experimental physics at Columbia.

The reason, however, why these men were selected for their respective positions is not to be found in their distinction as scientists, but in their ability as educators. The fact that Dr. Maclaurin was trustee of the University of New Zealand and was dean of the Faculty of Law indicates the measures of administrative ability. In fact, his service in organizing technological education in New Zealand makes it easy to understand why he has been chosen as the head of one of the great—if not itself the greatest—of all the technological schools in the United States. Likewise Dr. Nichols has been not merely a remarkable scientific investigator, but an expert administrator and organizer of educational forces that has made him recognized as distinctly well fitted for the presidency of Dartmouth.

The election of these two men shows that training in scientific knowledge is today regarded as in no wise unfitting a man for a high place of educational leadership. This was not always so. Indeed, it has not long been so. It is true that Dr. Eliot went to the presidency of Harvard as a teacher of science, but he was at least a Bachelor of Arts. The new president of Dartmouth holds no arts degree. Educated men are beginning to recognize that there are other roads to culture and wisdom than that which leads only along by the way of what used to be called the "humanities."—*The World's Work*, August.

The inaugural address of the new president of the Institute of Technology was interesting primarily to educators. From it they gathered the point of view of the new administrator on important divisive issues in education. They learned of the temper of the man, his processes of thought, his human ideals and his social sympathies. But there were other classes in the community who were interested in it, watching for any hints it might convey as to the aid they might derive from the coming of a man so widely travelled, so much experienced in observation of differing forms of government and so conversant with law, as well as with science. One such group was that of alert, wide-visioned, ambitious business men, eager not only for their own prosperity, but also for that of Boston and New England. Another group was that of civic reformers, whose ideals of government are not doctrinaire, but practical, who aim for efficiency and for conservation of resources, who are indifferent to past shibboleths or party cries, but who want Boston to profit by the best ideas and ideals of government wherever

practised. Was there anything in President Maclaurin's address to lead either or both these groups to believe that in him they have an ally? There was, and it is found in a passage which, coming from a Briton by birth and training, and read in the light of antiquated British methods in meeting German competition, has peculiar significance. President Maclaurin said:—

"Science has already profoundly changed the conditions of our life, and it may not be so very long until its method and its spirit permeate our modes of business and of government. . . . These great problems of production and distribution which the energy of a great industrial nation makes of paramount importance . . . are mainly scientific problems, although half a century ago, when this Institute was founded, it was only the far-seeing that had any glimpse of this, and very few among these that had any adequate conception of the mighty change that science would effect in the industrial problems of the world. Where such matters are concerned, energy, courage and doggedness are no longer enough, as they once were, to win the fight. With science they profit nothing, and are no more availing by themselves than is the dauntless courage of the savage in the face of a modern gun.

"The quickness with which the different nations grasped this vital fact might be used as a touchstone of their intelligence, and it is almost pathetic to observe the bewilderment of some of them who are just awakening to the knowledge that they must even now face a new heaven and a new earth."

An educator who can thus define the part that applied science and the use of the scientific method are to play in all business and in all government of the future is bound to aid Boston, Massachusetts and the United States in any efforts they may make to secure more efficient industrial, transportation and governmental operations. With President Lowell at Harvard, a business man and a past master in comparative government, and with President Maclaurin at "Tech," a believer in science serving the state to the full, Boston may count on fine team work in behalf of her highest ideals and fondest hopes.—*Boston Herald, June 11.*

Two years ago those sanitarians whose minds were still unsettled as to the danger of the spread of communicable diseases through air escaping from sewers or from plumbing systems were disturbed by a report on the results of bacterial tests with sewer air made by Major Horrocks at Gibraltar. Outside of Great Britain, where the dangers from sewer air have always been grossly exaggerated, Major Horrocks' report made no very great stir. At the same time it was sufficiently disconcerting to warrant a careful survey of the whole literature of bacteria and sewer air, and also to warrant further investigations of the subject. Such investigations, which in

this country, at least, bid fair to be final, have been made by Professor C.-E. A. Winslow, of the Sanitary Research Laboratory of the Massachusetts Institute of Technology. A critical summary of the literature of this whole subject, and also a summary of Professor Winslow's conclusions based on both previous experiments and his own, will be found elsewhere in this issue. The matter which we reprint forms only a small part of an extensive pamphlet, which we commend to the consideration of any who wish to go further into the subject.

Professor Winslow and the National Association of Plumbers, for whom the studies and pamphlet report were made, both deserve commendation for making available in convenient form a summary of all that has previously been done and written on the subject of sewer air and bacteria. They deserve even greater commendation for the important and convincing series of tests made by Professor Winslow.

It seems unnecessary to attempt to add anything to Professor Winslow's comments on the needlessness for much concern over the dissemination of disease germs by sewers and plumbing. We hope that his pamphlet will be widely circulated in Great Britain, and that the lessons which it teaches will be duly appreciated there. We are pleased to note that already the *London Surveyor* has expressed approval of Professor Winslow's conclusions. It is only fair to the *Surveyor*, however, to say that it has heretofore taken a rational stand on the spread of disease germs by sewer and plumbing air.—*Engineering News, September 2.*

## BOOK REVIEWS

A SHORT HANDBOOK OF OIL ANALYSIS. By Augustus H. Gill ('84), S.B., Ph.D. Fifth edition. Philadelphia: Lippincott & Co. \$1.50.

A book on chemical analysis which has five editions in twelve years is very nearly beyond criticism. Fault-finding is disapproved in advance, and praise is but gilding the refined gold of royalty. But a man so generally popular as Dr. Gill gets all the praise that is good for him, anyway, so it may be observed that there are some things in which this book may yet be improved. The illustrations are better than none, but not much; and the directions for using flash-test apparatus are not quite as complete as a beginner ought to have. It should always be remembered that a metallurgical or cement chemist, for example, skilled in using ordinary apparatus, may know nothing at all about a flash-test; and it is in little details that the manipulation of the expert excels and has its greatest value. In most cases the directions given in this book are full and clear.

The inclusion of refractive indices would probably be generally approved, since the refractometer has come into general use. In general, the book would be better if there were more of it, and, while its value is partly due to leaving out information not useful to the analyst, some further remarks as to the nature of the various oils, as well as to changes produced by reagents, from one so experienced as the author, would be of much use to the student.

Somewhat more than half of the book is given to physical and chemical tests. Then there are descriptions, including preparation, uses, tests and constants for the chief petroleum products, for seventeen vegetable and nine animal oils and certain waste fats and greases. There is an appendix of tables and other information. The book has been largely rewritten and has a good index. It appears to be free from typographical errors.—A. H. SABIN, in *Science*.

FOR THE NORTON NAME. By Hollis Godfrey ('98). Boston: Little, Brown & Co.

Godfrey's "Man who ended War" was reviewed last January. Since then he has published an Elementary Chemistry; and now comes another story, "For the Norton Name." Even such a strenuous writer has not, however, written all three books within a year. The present volume is

reprinted from the *Youth's Companion*, and is primarily intended for boys. It recounts the struggle of a young man who has suddenly succeeded to his father's business against a wicked trust which is trying to crush it out of existence. The trust exhibits subtlety and resource such as Ida Tarbell never dreamed of. Yet the hero, almost single-handed, foils his enemies, adroit lawyers and financiers, corrupt sheriffs and rural desperadoes. Normal boys should find the book utterly absorbing; and older persons who, like the reviewer, care for "stories," will do the same. Best of all, this is the first of a series, "Young Captains of Industry," and we are introduced in one of Norton's few allies to the hero of the succeeding volume. Godfrey seems in fair way to be the Oliver Optic of the future. It is to be hoped that some of the future Captains of Industry may be young Tech graduates surrounded by the atmosphere of the school which Godfrey could draw so well.

C.-E. A. WINSLOW.



NEWS FROM THE CLASSES

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1868.

PROF. ROBERT H. RICHARDS, *Sec.*, Mass. Inst. of Tech., Boston.

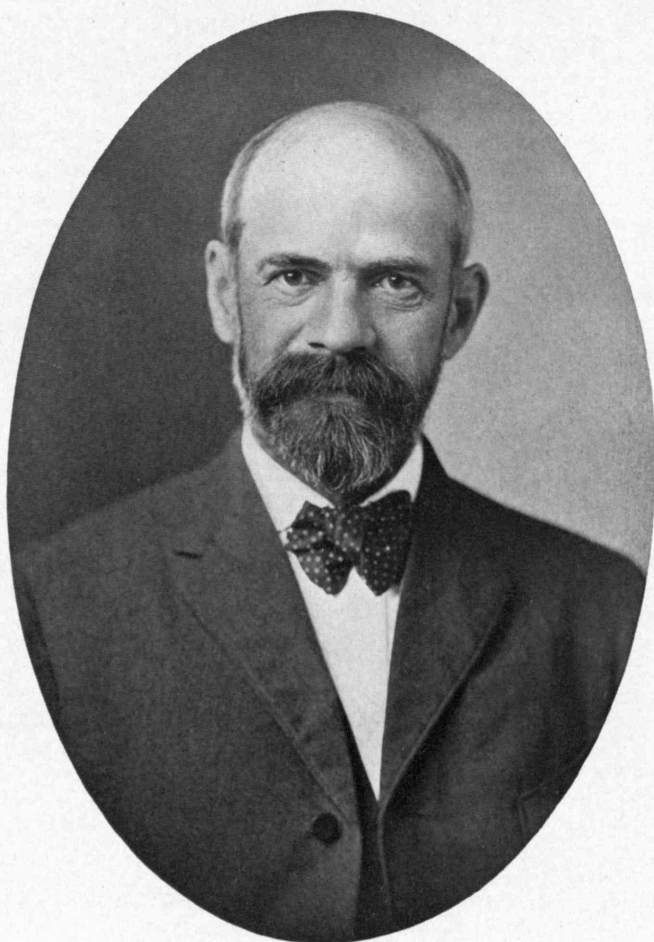
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Professor Richards spent a large part of the summer in the West, and, when at Denver, was entertained in a charming way at the University Club by the Tech men in that vicinity. The reunion was an inspiring subject of conversation as well as the future plans for Tech. Among those present were: Frank E. Shepard ('87), Maurice B. Biscoe ('93), Robert Clary ('00), Albert C. Dart ('01), Joseph Y. Parce ('93), W. C. Brace ('87), Henry B. Hallowell ('07), A. H. Low ('76), Henry H. Hewitt ('99), Edward S. Wiard ('99), John M. McMillin ('07), Willard V. Morse ('02), J. B. Benedict ('99), C. L. Dean ('05).—When at Ray, Ariz., in July, Mr. Ralph B. Williams invited the Tech men of Kelvin and Ray to meet Professor Richards. The evening was delightfully spent singing Tech songs and talking of Tech matters. There were a number of other colleges represented besides the Institute. The Tech men present were: Frederick W. Snow ('00), Ralph B. Williams ('04), L. A. Loomis ('09), Guy H. Ruggles ('06), H. C. Schrieffer ('09), John G. Barry ('07), C. A. Gibbons, Jr. ('08), George M. Henderson ('06), E. A. Thornton ('07), Lloyd T. Buell ('05). At McGill, Nev., and at Great Falls, Mont., he engaged in some lively tennis games with his metallurgical friends, and on returning home had a week of tennis at Randolph, N.H.—Ernest O. Saltmarsh is superintendent of the Pensacola Division of the Louisville & Nashville Railroad Company of Pensacola, Fla. In a letter received from him he expresses much regret that he could not avail himself of the opportunity to attend Mr. Bowditch's reception to recall old class acquaintances and remembrances during the reunion in June.—Eben Stevens had a rather strenuous time at the reunion festivities, but has spent a pleasant summer recuperating at his summer cottage at Weekapaug, R.I.—C. B. Fillebrown writes that he cannot well say anything without talking shop. He says that after a dozen years' devotion to what he thinks "the next to the greatest thing in the world," in writing a little book, "The A, B, C, of Taxation," and a model Single Tax Catechism, has just taken his first real

vacation,—a three weeks' automobile trip with friends through Maine and the Eden of northern Vermont, flowing with milk and maple syrup.—Daniel M. Wheeler, who is one of the Board of Railroad Commissioners for the Commonwealth of Massachusetts, writes as follows from Springfield, Mass.:—

The writer, who travels extensively in western Massachusetts, made a visit to Bash au Bish Falls this summer. And now he fancies that he can hear ninety-nine out of every one hundred Tech men exclaim: "Where are Bash au Bish Falls? We never have heard of them before." Well, then, it is time you heard of them, or, better still, time that you saw them. In the small town of Mount Washington, at the south-west corner of the state, two streams, coming one from the north and the other from the south, unite about one mile east of the New York line, and run westerly through a deep ravine between Cedar Mountain on the north and Bash au Bish Mountain on the south to a point only a few feet east of the state line, where the united waters plunge over a perpendicular ledge from the foot of which they make their way to the Hudson River. A steep, narrow and crooked road clings along the north side of the ravine far above the roaring torrent below. At the top of the falls there is an immense pointed rock, seemingly perched upon an insecure foundation, and this rock divides the water into two separate streams which fall into the same basin below. But the beauty and grandeur of the scene are not wholly or mainly in the falls themselves. The wild narrow gorge with perpendicular sides perhaps two hundred feet high, the swift and tumultuous rapids above the fall, the "crow's nest," so called, hidden high upon a rock shelf in the side of the gorge and the wooded sides and summits of the mountains, all combine to render the scene one of the wildest and most picturesque in the state. The total descent in falls and rapids within a few hundred feet is more than two hundred feet, and within one mile about four hundred feet. From the level country a mile or two west, near Copake Iron Works, a fine view of the mountains and the gorge from which issues the Bash au Bish can be had. Like many other Berkshire scenes, this beautiful spot is almost unknown to most persons in the eastern part of the state, and the writer will be glad if by this short account he may be able to induce others to see for themselves these wonderful works of the Creator.

—The secretary has a pleasant personal note from William Jackson, city engineer of Boston.—Channing Whitaker says that he has been slowly, but steadily regaining his health, and he now finds himself able to do some athletic stunts that surprise the members of his family.—Bryant Tilden, who is away up in Jamestown, N.D., writes he has been busy building *mud* roads for the county, and, as he is much in the open air, his health is excellent. He was much interested in the REVIEW containing pictures of the reunion, and he was sorry indeed he could not have been in the "mix-up."



EUGENE LESTER TEBBETS, '69

1869.

HOWARD A. CARSON, *Sec.*, 79 Glenwood Street, Malden, Mass.

Eugene Lester Tebbets died at his home, May 28, 1909. He suffered an attack, which rendered him unconscious, while at work in his office at Locke Mills, Me., on the first day of last April. After about ten days he was able to make the journey to his home in Auburn, where for a time he appeared to improve, but later a change for the worse set in, followed by unconsciousness. His physicians believe his illness was caused by too close application to business. Mr. Tebbets was born in Lisbon, Me., June 6, 1849, the son of John G. and Clara A. (Bucknam) Tebbets. His grandfather, Paul C. Tebbets, settled in Lisbon during the first decade of the nineteenth century, and became a prosperous merchant there. E. L. Tebbets was educated at Edward Little Institute in Auburn, going thence to the Institute of Technology. Thirteen years ago he purchased a residence at No. 17 Prospect Street, Auburn, which was thenceforth his home. He married on Sept. 4, 1873, Lizzie C. Morton, of Augusta, Me., who with three sons, Charles B., Eugene L., Jr., and Donald H., survive him. After completing his studies at the Massachusetts Institute of Technology with the Class of 1869, he engaged in civil engineering, and for about six years was attached to the engineering department of the Maine Central Railroad. He was then connected with the accounting department at the general office in Portland, Me., for six years. The close confinement injuriously affected his health, and he sought recuperation by returning to the practice of his profession for about six months, devoted to railroad engineering in California. In 1882 he became associated with his father, the late John G. Tebbets, in the manufacture of spools at Lock's Mills, Me. Upon the death of the elder Tebbets, in 1892, he assumed entire charge of the business. By the introduction of exact business methods, energy, business prudence and foresight, he developed and gradually enlarged his manufacturing operations, until the plant of his company for the manufacture of spools and wood turnings became the best equipped in that section, and had no superior throughout the state. As a student, he was capable and earnest, and his appreciation of the right, his modesty, his keen sense of humor and his sympathetic nature made him many warm and lasting friends. In his business life Mr. Tebbets was actuated by the finest sense of integrity and honest dealing. In his relations with his employees, he was considerate, courteous and just, esteemed

and respected by those who faithfully served him. He devoted his time and efforts freely to the interest of the community in which he lived, and while occupying various municipal offices, for which his services were sought by his fellow-townsmen, he placed the financial affairs of the town of Greenwood on a substantial basis. His ideals of civic duty were high. The standard of integrity which he fixed for dealings between individuals he applied to the community. His taste for literature was cultivated by familiarity with the best writers. His sympathies were wide, and his friendships intimate and enduring. (Sketch furnished mainly by John A. Morrill.)

1874.

CHARLES FRENCH READ, *Sec.*, Old State House, Boston, Mass.

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Herbert Barrows, a graduate of the Institute in 1874, and a member of the Class Association, died in Hingham, Mass., June 7, 1909. He was the oldest child of William Barrows and Elizabeth (Cate) Barrows, born at Grantville, Mass., Aug. 1, 1852. In 1856 the family moved to Reading, Mass., which continued to be the home of Herbert Barrows for substantially the rest of his life. He graduated at the Reading High School in 1870, immediately entering M. I. T. As a boy, he had a decided inclination towards mechanics, and selected without hesitation the civil engineering course at the Institute. The Jay Cooke panic of 1873 paralyzed general development for some years, and forced him into other lines of business, so that he never followed his profession except as an incident of other occupations. In 1882 he married Katherine Watts, of New York city, who died in February, 1904. In June, 1905, he married Anne Burr, of St. Paul, Minn., who survives him. There were no children of either marriage. During the last four years he lived at Hingham, Mass.

1883.

HARVEY S. CHASE, *Sec.*, 84 State Street, Boston.

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In the interests of science and to settle this unfortunate arctic controversy, the Class of '83, with its customary activity in the cause of humanity, has prepared to go to the pole and demonstrate that neither of the alleged arctic explorers has ever been there. We start immediately in Wrong's Patent Aëroplane, from the top of the



Rogers Building, just after provisioning on Thanksgiving turkey. Wireless apparatus has been installed at the Tech Union, and constant communication will be provided with *The Tech* and THE TECHNOLOGY REVIEW. Applications have been pouring in from other classes to accompany '83, but this trip is exclusive. All other classes will have to turn their attention to the South Pole. All details copyrighted and syndicated in advance. Keep your eye on the real old pole.

1884.

HARRY W. TYLER, *Sec.*, Mass. Inst. of Technology, Boston, Mass.

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Colonel D. A. Lyle since his retirement has been living abroad, more recently at Lucerne, with his wife and daughter.—A. W. Whitney has recently changed his professional connection, and is now with the Enterprise Foundry and Machine Works of Bristol, Tenn., and Virginia, who have installed modern equipment for the manufacture of car wheels and mine cars.—Professor A. L. Rotch was elected to honorary membership in the Harvard Chapter of the Phi Beta Kappa Society in the early summer.—Mr. Rotch's book, "The Conquest of the Air, or the Advent of Aërial Navigation" (Present-Day Pioneers, Moffet, Yard & Co., New York), is just published. All observations in the free atmosphere now have a practical value for aëronauts and aviators. At Blue Hill Mr. Rotch is beginning a series of ascensions of pilot balloons to determine the direction and velocity of the air-currents at different heights, in various weather conditions. More sounding balloons will be sent up from Pittsfield in December, to ascertain the temperature at great heights. One of his balloons has brought down data from eleven miles. He is to give a talk on Aërial Navigation at the Tech Union next month.

1885.

I. W. LITCHFIELD, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

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The greatest event in the history of the class will occur next June when we celebrate our twenty-fifth anniversary. At the annual dinner of the class in April, Little, Pierce, Morss, Richards, MacRae and Pickernell were appointed a committee to act with President Fred Kimball and the secretary in arranging for the reunion.

The advisory committee consists of Morss, Pratt and Fiske.—It is a foregone conclusion, of course, that the reunion will occur in June, and that we will enjoy the delightful courtesy of Dr. Shubmehl at his camp on Squam Lake. Those who experienced the delights of Camp Walker have been looking forward to this occasion with great anticipation for the last four years. At that time we had present about twenty-two men. Next year, however, we have reason to believe there will be at least thirty-five or forty. Although the log of Camp Walker gave but a feeble idea of the pleasures of the reunion, it made an impression on some of our distant members, who made a vow that no combination of circumstances would deter them from the 25th. The committees are already making preparations for the event, and a tentative canvass of the members of the class will soon be made, in order that we may know about how many to expect.—Morris Wilder was in Boston recently on his way back from Biddeford Pool, Me., where he has been passing the summer. He was accompanied by Mrs. Wilder and their two sons. Morris has marked a red line around the month of June, 1910, and is prepared to reserve any week that may be selected for the twenty-fifth anniversary.—Merrill has recently heard from Heywood Cochrane, who is manager of the Chicago office of the Carbondale Machine Company, 1013 Manhattan Building, Chicago.—Tom Fry is a member of the New Hampshire House of Representatives,—a new responsibility which is proving an interesting experience. For four years he was a member of the High School Board. He was chairman of the Building Committee of the Carnegie Library of Claremont, and is trustee of the Claremont Savings Bank. Tom did not tell us this. We saw it in "Who's Who in New England."—Reddington Fiske is now located in Boston. His office is 50 Congress Street. For a number of years he was away from the city, and we missed him at our reunions.—Henry A. Magoun is vice-president of the New York Shipbuilding Company, Camden, N.J.

1886.

ARTHUR GRAHAM ROBBINS, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

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It is with great sorrow that the secretary reports the death of our classmate Edward Shove. One of his classmates has written the following sketch of his life and work since we knew him at Technology:—

Shove spent only two years at the Institute, taking the mechanical engi-

neering course. After completing the second year, with a high standard of scholarship, he determined to spend a year in studying the practical side of the manufacturing business, and connected himself with the Granite Mills in Fall River, anticipating at that time a return to the Institute to complete his course in mechanical engineering. Becoming engrossed with his work at the mill, this plan was given up. After three years he made a trip to Europe, and, returning, he made connections with the South, and engaged in the business of selling cotton, in which he was very successful. In 1892, yielding to urgent requests to accept the treasurership of the Mechanics Mills, then vacant, he accepted that position, and there continued until 1905, when on account of failing health he resigned. He then spent a year or more in travel and in recuperation at his farm in Tiverton, R.I., after which he interested himself in the development of certain mechanical patents. In 1907 he returned to Fall River, and took up again the business of selling cotton, in which he was engaged until June 1, 1908, when failing health compelled him to relinquish it. His death occurred July 27, 1909, from brain tumor, which, the doctors state, had been several years in developing. In 1892 he married Sarah Elmendorf, daughter of the Rev. Joachim Elmendorf, of New York. His widow and two daughters survive him.

His recreations were yachting and the development of his farm in the country. Devoted to his family, he nevertheless found the time to interest himself in the social life of the community. His training made him an authority in all branches of the cotton industry.

1887.

EDWARD G. THOMAS, *Sec.*, 157 Congress Street, Brooklyn, N.Y.

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A. L. Cushing is now a member of the firm of B. W. Ewing & Co., commission merchants, at No. 73 Fifth Avenue.—Vose has been moved to the sanatorium of Dr. Weed in Saxonville, Mass.—Spaulding has become connected with the selling department of the Yale & Towne Manufacturing Company, with headquarters at 7 Warren Street, New York.—Sprague made a trip to Vancouver in July, investigating a coal property in British Columbia.—Burgess gave recently at the Fifth Avenue Theatre, New York, a trial performance of his "mimeologues," written for Miss Estelle Loomis. He states that the mimeologue is a new form of dramatic construction adapted for vaudeville entertainment, being a combination of monologue and pantomime. It is, in effect, a little play performed by a single person upon a draped stage, without properties or change of costume. He also published a story in the October number of the *Smart Set*.—Henry M. Steele, of the Class of '87, died at Asheville,

N.C., on July 5. After leaving the Institute in 1885, he was for a time connected with the Civil Engineering Department of the Erie Railroad. Later he became engineer for the Hall Switch & Signal Company, and was with them for some time. His health became impaired, and after his marriage to Miss Margaret McKim, of Baltimore, he went South, and lived for a time in Asheville. Upon recovering his health, he became chief engineer of the Central of Georgia Railroad, with offices at Savannah. This position he held for a number of years until his return to New York three or four years ago as civil engineer of the J. G. White Company. This position he held up to last winter, when, his health again failing, he went to Bermuda, returning after a few weeks and again trying Asheville; but this time his hard work and close confinement with the J. G. White Company had so far affected his health that Asheville did not give him the expected improvement, and he died there on July 5. Steele had a most engaging personality, and was everywhere popular. In the Institute he was active in all class affairs, and held several class offices. He leaves, beside Mrs. Steele, three children.

1888.

WILLIAM G. SNOW, *Sec.*, 24 Milk Street, Boston, Mass.

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Fred J. Wood has resigned from the Boston & Providence Inter-urban projected line, and is now with the Boston Elevated Railway.—The Shawmut car, in the manufacture of which Newton and Roberts are interested, made a fine showing in the trans-continental race between New York and Seattle in connection with the Exposition in the latter city.—Several of the properties under Stone & Webster management have paid initial dividends on the common stock within the past few months, showing the improvement in business conditions and reflecting the able management of the properties.—William G. Snow presided at the semi-annual meeting of the American Society of Heating and Ventilating Engineers at Indianapolis in July.

1889.

PROF. W. E. MOTT, *Sec.*, Carnegie Technical Schools, Pittsburg, Pa.

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After seven years' service with the Big Four Railway as superintendent of construction and later as chief engineer, during which

time extensive improvements costing in the neighborhood of sixteen and a half million dollars were made, W. M. Duane is now engaged, as vice-president and general manager of the Wabash Construction Company, Davenport, Ia., on heavy construction work for the Buffalo, Rochester & Pittsburg Railroad, second track work for the Missouri Pacific and West Shore Railroads, and on third track construction for the Boston & Albany Railroad.—Hollis French has a daughter, Rue Elizabeth, born Aug. 28, 1909. French and Hubbard have been appointed consulting engineers for the heating, ventilating, electrical work and plumbing of the new municipal buildings for Springfield, Mass.—Schuyler Hazard has resigned as resident engineer for the New York Constructing Company on the Pennsylvania Terminal, New York city, and has become general manager and chief engineer in charge of production, sales and engineering of the Orleans County Quarry Company, Albion, N.Y., producers of Medina stone.—Walter H. Kilham has been enjoying a six weeks' vacation in Paris and touring by automobile through France.—Albert Sauveur, who has recently returned from a year spent mainly in Paris, Italy and Switzerland, was made, while in France, an *Officier d'Académie*.—G. C. Wales is busy with the plans for a large mansion in Idaho.—W. E. Mott has resigned from the Institute of Technology to accept the professorship of civil engineering, Carnegie Technical Schools, Pittsburg, Pa., and has removed to that city.—The Class Book is ready for the printer, and due notice regarding its scope and price will be sent to each member of the class.

1890.

GEORGE L. GILMORE, *Sec.*, Lexington, Mass.

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In response to an invitation from Mr. and Mrs. H. P. Spaulding to visit them at their bungalow, "The Waubeek," at East Gloucester, the following members of the Class of '90, with ladies, met at the Boston Yacht Club float on Wednesday afternoon, July 7: Mr. and Mrs. E. F. Bragg, Mr. and Mrs. J. O. DeWolf, Mr. and Mrs. G. L. Gilmore, Mr. and Mrs. B. A. Lenfest, Mr. and Mrs. G. A. Packard, Mr. and Mrs. T. N. Tripp, Mr. H. B. Burley, Mr. William Mossman, Mr. L. C. Wason and Colonel Charles Hayden. Colonel Hayden's tender was waiting, and the entire party was soon on board his steam yacht, "Wacondah," that took so important a part during the Technology reunion. A most delightful trip was



enjoyed along the shore, and after a short two hours the party landed at Gloucester, and were met by Mr. and Mrs. Spaulding and Miss Peggy. A delightful afternoon was spent on their piazza and grounds overlooking the sea, with a '90 banner waving in the breeze. Mrs. L. C. Wason joined the party here, coming by auto. It was the unanimous opinion of all that in future the ladies should be present at all gatherings of '90. After a piazza supper the party returned in the yacht by twilight, and voted the afternoon a grand success, thanks to our host and hostess and Colonel Hayden, the only regret being that more of the class were not present.—In the Eastern Yacht Club cruise in July the Wacondah cups, presented by Colonel Charles Hayden, were raced for, and the squadron ran from North Point to Bar Harbor, two cups for schooners and two cups for sloops and yawls.—Colonel Charles Hayden is a director in the China Copper Company as well as the Utah Copper Company.—Mr. F. P. Royce is now with Stone & Webster.—Mr. Charles F. Fitts is in the Railway Exchange, Chicago, Ill.—Mr. and Mrs. H. M. Goodwin left for California early in July with Professor Hale, who had just returned from Europe. Since then Mr. and Mrs. Goodwin have been travelling north to Seattle, and returned East through the Canadian Rockies.—Mr. Guy C. Emerson, superintendent of streets of Boston, has signed a contract with the Rising Sun Street Lighting Company, to go into effect after September 15, by which the company is to furnish gas and care for the lamps at \$23.61 per year. The price under the old contract was \$24.96. The new contract is an extension of the old one, and will expire Feb. 1, 1910.—In a ball game played at Pittsfield August 23, in which Senator Crane captained one team and his son, Winthrop M. Crane, Jr., the other, the Rev. Franklin Knight, rector of the New Haven Episcopal church and a member of the Class of '90, played outfield on the senator's team. In a rush to catch a long fly hit, Frank came in contact with the Rev. Herbert S. Johnson, of the Warren Avenue Church, Boston. As the Rev. Mr. Johnson was about double the weight of Frank, the results were disastrous to our classmate, and he retired from the game with a black eye and a lame leg, but is undoubtedly ready by this time for another match. Frank had his early practice in the annual games between the civil engineers and the mechanical engineers during the last years of '90 at Tech.

1891.

HOWARD C. FORBES, *Sec.*, 88 Broad Street, Boston, Mass.

Plans for our twentieth anniversary—1911—are under way. The committee appointed last June have met, and divided the work among five sub-committees, as follows: general arrangements, Bradlee, chairman, Fiske and Wilson; amusements, Forbes, chairman, Dart and Trowbridge; publicity, Alley, chairman, Bird and Douglass; finances, Cunningham, chairman, Wilder and Bowen; Class Book, Garrison, chairman, Aiken and Forbes.—Charles P. Weatherbee is connected with the Bath Iron Works as superintending engineer. This company has just built for the United States two torpedo boat destroyers, the “Flusser” and the “Reid.” Weatherbee writes in regard to the “Flusser”:

The vessel was outlined and designed by the Navy Department with reciprocating machinery; but we felt that turbine machinery would be better for high-speed work, and so our company bid on Parsons turbine machinery, and the bid was accepted. This change in the machinery necessitated redesigning the vessel with regard to the arrangement of the boiler and engine rooms. Also it necessitated making alterations in the model of the aft body to permit installing a centre shaft and to give proper flow of water to its propeller. My own part of the work brought me in personal contact with all the above matters. The performance of the “Flusser” in its trial run showed a speed of 32.9 knots, with a maximum horse power of 14,600.

Under the heading of “The Fastest American Warship” the *Boston Transcript* of Oct. 6, 1909, gives the following account of the “Reid”:

A magnificent record was made by the torpedo boat destroyer “Reid” today in her first official acceptance trial. It was her standardization test and she made her fastest mile at the rate of 34,548 knots per hour, which was nearly a knot better than her sister ship (the “Flusser”) did on the same test a month ago. Both craft are products of the Bath Iron Works. The mean of the top-speed runs of the “Reid” to-day was 33.75, an eighth of a knot better than the “Flusser” did. The “Reid” also made the fastest standardization record in the world; that is, the shortest time was required to complete her standardization test. She entered the course at 6.10 A.M., and made 22 runs before 9 A.M. Conditions were fine, and everything worked splendidly on board. She developed a shaft horse power of a little better than 15,000, being about 1,000 more than that made by her sister ship “Flusser.” The trial was under the direction of Superintendent Engineer Charles P. Weatherbee, of the Bath Iron Works.

—Leonard C. Wason, president of the Aberthaw Construction Company (concrete engineers and specialists in concrete construction), writes as follows:—

The big fires, earthquakes, together with the printed discussions in all kinds of papers which followed, have brought concrete construction into very general use. It now often is given a preference in price where something cheaper would be good enough. I have shared in this boom of reinforced concrete construction. It is mostly mill work, which indicates a vast increase in manufacture over the past busy years of industry. I am at present building about 100,000 square feet of floors for Carter's Ink Company, Cambridge; 110,000 square feet for Winchester Repeating Arms Company, New Haven; 110,000 square feet for Pierce Arrow Motor Car Co., Buffalo; 20,000 square feet for the Hood Rubber Company, Watertown; and an eight-story furniture warehouse in Portland. All the above are general contracts for completed buildings. The Pierce and Hood jobs are mere beginnings of vast extensions. I have completed this year three mills for Boston Insulated Wire and Cable Company, one for Converse Rubber Company, a pulp mill at Parsons, W. Va., and minor work on twenty other mills, also two office buildings, one eight stories, 96,000 square feet floors. The above indicates to me a general increase in manufacturing business throughout the East. I do the outside superintending, and am travelling about fourteen hundred miles a week. Eating and sleeping is an incidental recreation, when there is time. It is the busiest year I have yet had. You can tell '91 that the merits of reinforced concrete are now so firmly established that, like Pitcher's castoria, "the children cry for it, while the old folks *will* have it."

—Arthur Howland, vice-president of the Stuart-Howland Company, whose business is "Everything Electrical," reports general business good. His company has established a special department to supply electrical goods for automobile and motor-boat work, and have issued a special catalogue thereon. This business has increased enormously in the last two years. Their store is equipped with a wireless outfit, and they offer to the trade a simple device for receiving messages. The sending apparatus, however, is more complicated, and requires considerable power. Howland has taken out a patent on a combination electric tail light and number holder for automobiles.—Lewis F. Verges, who is interested in sugar plantations in Porto Rico, is in Boston at present, and writes as follows:

The sugar industry of Porto Rico has progressed by leaps and bounds since the American occupation of the island. From sixty thousand tons of sugar per year, as in 1897, the island is now producing two hundred and fifty thousand tons, and the production bids fair to increase with the use of better machinery, better cultivation and irrigating.

The field is undoubtedly limited, as the island is small; but the demand

for bright men, capable of managing large plantations, is very great. Technology men should be well qualified to take up such positions after serving some time in the chemical or engineering staff of a plantation. There is much room for improvement in the cultivation and manufacturing of sugar cane, and, while much has been accomplished within the last twenty years, the future is still very promising. This is especially true of the agricultural work, where I look forward to great improvements coming from the selection of seedlings and more intensive agriculture. In the manufacturing line we are adopting, as fast as possible, the most modern methods, and this necessarily means great outlay of capital, as sugar machinery is very heavy and expensive.

—Fred A. Wilson, of J. T. Wilson & Son, building contractors, has been abroad in the late summer, and writes as follows:—

I wrote you some time since that I was off for a seven weeks' vacation.

Three men, leaving wives behind, sailed out on the "Lusitania" on August 18, and soon skipped from the "land of the free" to the "land of the fee." (Our wives really sent us, so we would get the habit.) In England and Scotland we visited London and Edinburgh, with a day or two around Warwick, Stratford district. Then from Harwich to the Hook on a boat that was pivoted, so she could roll around and around. Then came a few enjoyable days passing through smaller places, until we arrived at Munich. Here it took us only an hour to find a man could go three quarts and not notice it. We finally got into the "durned old waterlogged town," where Daniels managed to hold us for a few days until we could tolerate no more. Then in Switzerland we found another kind of roast in excess baggage fees, and so finally we reached Paris. Here, not having our wives along, we did not dare to go out far by night, and so we missed what "they say" is the most notable side of life there. We rolled home on the "St. Paul," reaching New York in time to be again stabbed by the temporary enlargement of cab fees, due to the Hudson-Fulton celebration. As we took care to buy our return passage before leaving Boston, none of our people feared we wouldn't get here, however. Had a fine time, two good travelling companions and lots of fun. My two friends, alas! are not Tech men, but they were good men all the same.

—Stephen Bowen was abroad early in the summer, and thereby missed the Technology reunion. He writes as follows with regard to his trip:—

There were five in our party, and we sailed from Boston on the "Saxonia" May 18. For a small charge a custom-house broker will see to packing, shipping the motor and procuring English licenses, which, if one does not know the ropes, is no easy task.

We landed in Liverpool on a Thursday and Saturday morning were on our way over perfect roads for Bettys-y-Coed, a charming little town in the mountains of North Wales. I had always thought of England as a



flat country, but we found some very steep hills in Wales and North Devonshire. Porlock Hill, which is considered one of the worst, has a maximum gradient of one in five, and is three miles long. All roads have a very fine surface, but are narrow, and the sharp turns call for careful driving, although, to my mind, they are much more beautiful than the long straight stretches of France. The constant showers lay the dust and keep the road surface from blowing away, as well as the grass and foliage green. The small inns all through the country are excellent; and, although we went to some out-of-the-way places, as South Wales and Land's End, we found them clean, and the food plain, but good. From Land's End we followed the south coast of England to Southampton, where we crossed to Havre.

France is said to be the motorists' Mecca. The roads are broad and straight and there is no speed limit. I remember one stretch where we ran for fifteen and one-half miles without the slightest bend. With the Carte Taride, which are said to be the best road maps made, and the excellent French system of sign-posts, we had no trouble in finding our way, even though my course in French at Tech has left much to be desired. Every cross-road in either country or town has a large blue iron sign with the name of the place at the top in white letters, and under this the three next towns in each direction, with distances in kilometres. After a thousand miles in the château district of Brittany and Normandy, where we visited the "Three Normandie Inn," made famous by Mrs. Dodd's little book, we were glad to be back in England. At first it is rather confusing to keep to the left when meeting a team, but after a week or two it becomes second nature.

The only unpleasant feature of my trip was that it kept me from the June reunion.

Edward Cunningham writes as follows:—

I have just returned from a three weeks' trip in the woods of Canada. I went into the eastern portion of the province of Quebec,—that is, that portion which lies along the Saguenay River. It is a very beautiful country and entirely wild. I took with me my son Edward, who is now sixteen, and with a guide and canoe apiece we travelled through a chain of lakes, passing from one lake to another by frequent portage trails and camping wherever we found a good spot to fish or hunt. We had very good sport, besides plenty of tramping and paddling in our canoes, and it seems to me there is nothing equal to such a trip for any one who wants an entire change and to get air and exercise.

We slept in a tent, of course, and were always perfectly comfortable, in spite of the fact that it rained most of the time, for the first ten days at least. We were wet for days, but it did not seem to make any difference, as far as catching cold was concerned, as we were always on the move during the day-time, and at night we took care to put on dry things.

I have camped a good deal in the West, but camping in the East is quite different, although each has its peculiar attraction. In the first case you



travel on horseback, and pack your belongings on a pack-horse, whereas in the latter you go by canoe, and, when you come to a portage, you have to pack your belongings on your back. There is also a great difference in the ways of the guides. One is used to doing with a very scant amount of water and wood, whereas the other is used to them both in abundance. The consequent difference in their methods is very interesting.

—Harry H. Young, treasurer of the J. L. Hammett Company, was interviewed in his busy season at about the time of the opening of the schools. This year he has taken the government contract to furnish the island of Porto Rico with school supplies.—The Choralcelo Manufacturing Company, of which Garrison is secretary, has just taken a sales-room in the Colonial Building, 100 Boylston Street, Boston. A music-room on the tenth floor, 40 x 42 feet, has just been made ready for this new musical instrument.—George W. Vaillant is connected with Edgerly & Crocker, of Boston, in the bond department.—J. A. Highlands will locate in Tucson, Ariz., where he will act as general manager for the Pioneer Smelting Company (copper ore). Joshua Hale will open a Boston office at 75 State Street for Chisholm and Chapman, bankers of New York, where he will be prepared to execute orders in stocks and bonds either in the New York or Boston markets.

1893.

FREDERIC H. FAY, *Sec.*, 60 City Hall, Boston, Mass.

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The class has been honored in the nomination of Albert Farwell Bemis for president of the Alumni Association for the coming year. Bemis, who was the popular president of the class in our junior and senior years, has taken a deep interest in Institute affairs since graduation, has served for many years as secretary of the Walker Memorial Committee as well as a member of other committees, and is just completing a two years' term of service as vice-president of the Alumni Association. In this important period of Technology history, when the past students are being asked to share in the solution of weighty Institute problems, the alumni are most fortunate in securing for their president next year a man of such marked ability, loyalty and breadth of view. All will join in hearty good wishes for the success of Bemis' administration.—James C. Boyd is one of the three chief engineers of Westinghouse, Church, Kerr & Co., 10 Bridge Street, New York, his title being "consulting mechanical engineer." Boyd has been with this com-

pany for seven years, during which time he has been engaged largely upon transportation problems. He was in charge of the electrification of a large portion of the Long Island Railroad system, and was called in consultation by officials of the New York Central, the New Haven and Pennsylvania roads, in their proposed electrification work. He has made designs, estimates, and layouts for a system of subways in the city of New York, the route selected and recommended by his company being that known as the Lexington Avenue route, which has been adopted by the Rapid Transit Commission. He has also made reports on transportation matters to the Metropolitan interests, Brooklyn Rapid Transit interests, John B. McDonald, and others in connection with proposed subways and tunnels connecting the various boroughs of New York. He has made investigations and reports on transportation problems and electric railway projects for the city of Montreal and in many parts of the United States. He has also been called in consultation on waterways of the state by the governor of New Jersey.—Densmore reports the arrival on May 6, 1909, of a son, Edward D. Densmore, Jr. The firm of Densmore & Le Clear, of which Densmore is senior partner, has recently moved its offices from 15 Exchange Street to 88 Broad Street, where they have larger quarters. Densmore reports himself as particularly busy, owing to the absence of his partner in Europe.—Frederic H. Fay was recently on the witness-stand for five successive days as expert for the Commonwealth in the trial of the "Boston Agreement" or "steel" cases, so called, which aroused considerable interest from the fact that most of the concerns engaged in structural steel business in Boston were on trial charged with conspiracy to control trade. A total of thirty-two indictments had been found against corporations or individuals as a result of the investigations of the Boston Finance Commission in 1908, and these several cases were tried together.—Frederic W. Lord has recently organized the Lord Construction Company to do contracting engineering, as his work of this nature has lately broadened out and exceeded the scope of the Lord Electric Company, a company doing business in Boston and New York, and of which Lord has been president since its organization in 1895. Among the company's recent contracts is one on the new Manhattan Bridge, New York city, amounting to nearly half a million dollars, which covers, besides the electrical work, the under-planking, wood-block pavement and track construction of the roadways, the reinforced concrete flooring of the foot-walks, the iron railings, etc. Lord writes that hereafter the company intends to take contracts for complete me-

chanical equipments and similar work of an engineering character.—Walter H. Norris, for many years assistant engineer in the bridge department of the Boston & Maine Railroad, with headquarters at Boston, has recently been promoted to the position of bridge engineer of the Maine Central Railroad, with headquarters at Portland, Me., succeeding B. W. Guppy (M. I. T. '89), who becomes bridge engineer of the Boston & Maine. Norris has moved from Melrose, Mass., to 54A Glenwood Street, Deering, Me.—Eugene Everett Pettee and Miss Margaret Edith Babcock, daughter of Mrs. Charles Fenno Babcock, are to be married at the Church of the New Jerusalem, Roxbury, Mass., on Saturday evening, October 23. Mr. and Mrs. Pettee will be at home after February 1 at 575 Blue Hill Avenue, Roxbury. Pettee is a member of the firm of J. R. Worcester & Co., consulting engineers, 79 Milk Street, Boston.—Harold A. Richmond spent two months abroad during the past summer on a business trip, on which he visited Germany, Austria, Hungary, Switzerland and France. Richmond is president of the American Emery Wheel Works of Providence, R.I.—With the opening of the school year Charles M. Spofford begins his duties as Hayward Professor of Civil Engineering at the Institute. Spofford moved into his new home at 8 Keswick Street, Boston (near Audubon Circle on Beacon Street), in September, after spending the summer in literary work at Camp Taconnet, Belgrade Lakes, Me.—The home address of William C. Whiston is changed from 625 West 135th Street to 611 West 141st Street, New York city.—J. E. Woodbridge has resigned his position with the General Electric Company at Schenectady, N.Y., and on September 1 entered the employ of Ford, Bacon & Davis, engineers, 115 Broadway, New York city. Woodbridge is now in California in charge of construction work for the Sierra and San Francisco Power Company.—James A. Emery has been connected with Ford, Bacon & Davis for a number of years, and for that firm is at present engaged in street railway report work.

1895.

GEORGE A. ROCKWELL, *Sec.*, 101 Tremont Street, Boston, Mass.

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The class is indebted to Alfred L. Fitch, of Chicago, Ill., for a very good photograph of the class stunt at Nantasket. Among those who could not be present at the reunion, but who sent letters of regret, were Luther Conant, Jr., of Washington, D.C.; J. C. Dicker-

man, of Madison, Wis., who is on the faculty of the University of Wisconsin; George L. Bixby, of Indianapolis; E. E. Dennison, of Portland, Me.; William S. Rhodes, of Savannah, Ga.; D. L. Bliss, Jr., of Tahoe, Cal.; J. T. R. McManus, of Memramcook, N.B.; F. C. Schmitz, H. Gardner, W. C. Brackett, F. W. Belknap, of New York; Richard Morey, of Apalachicola, Fla.; George E. Howe, of Wauseon, Ohio.—L. K. Rourke wrote, "I am married now, and have charge of the largest steam shovel job in the world."—W. J. Rice wrote that he is developing an apple ranch in Cashmere, Wash., and said: "You may tell all the boys for me that I am a farmer. Thus do great careers live up to their early promises."—Francois E. Matthes wrote from Washington that he is to have charge of surveying the coal country of West Virginia. The following is an excerpt from his letter:—

In fact, it partakes a whole lot of a military campaign. You take advantage of the topography and the routes of communication, you hunt out strategical positions and do all the damage you can from them, only you don't necessarily shoot anybody.

—The next reunion of the class will be held in the spring of 1910, and will be in celebration of the fifteenth anniversary. The idea of having a reunion next spring has met with approval from many members of the class, and it is not too early for suggestions as to the best form of celebration. While no details have been definitely determined, the general plan is to spend three or four days at the country or seashore. At the time of the general reunion last June, men were appointed in different sections of the country to discuss with the other members of the class who live in those sections the matter of the celebration of the fifteenth anniversary and to arouse as much enthusiasm in it as possible. The secretary will be very glad to receive suggestions as to the time and place of holding the reunion, as well as to details of entertainment.

Whereas the Class of '95 was the active instigator of the restoration of the Huntington Hall frieze, the urgent supporter of the Class of '05 in undertaking the work, and the contributor to the expense of the four panels over the two entrance doors,—Architecture, Mining, Chemistry and Electrical Engineering,—therefore,

*Resolved*, That the Class of 1895 hereby expresses its gratitude to the Institute for carrying this work to completion in this year 1909 on the occasion of the second Technology Reunion; to the President, Dean and Faculty, who encouraged the attempt; to the many untiring and enthusiastic students who labored on its panels; and especially to Mr. W. Fenton



Brown, the able Artist and Instructor, who so enthusiastically superintended the execution of the Frieze.

In it appears his artistic insight and feeling and grasp of the whole composition which he carried over a period of five years, and yet maintained as a unit, a monument and memorial not only to its givers and makers, but to its real instigator, a loyal undying Institute Spirit.

1896.

PROF. CHARLES E. LOCKE, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

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E. H. Laws was married July 20 to Miss Alice Claire Glassbrook, of Berkeley, Cal. Mr. Laws is now located at Salida, Col., where he has charge of an independent smelter.—Charlie Morris, under date of June 24, wrote from Mersina, Turkey in Asia, as follows:—

I am more than disappointed that it is impossible for me to attend the class reunion. Had I been anywhere along the Atlantic coast, I would have made every effort to have joined in with the fun, especially as it has never been my fortune to have been in Boston at a time when it was possible to renew old times with my classmates.

The last TECH REVIEW reached me at Smyrna, and I certainly enjoyed the class news it gave. It affords the only means I have of keeping in touch at all with the fellows and know anything of what they are doing, and so I hope it will keep up its good work.

Our duty here is very monotonous, and all on board are hoping that it will soon cease. Adana, where the worst Armenian massacres recently took place, is a few miles inland and connected by a railroad, but it is half in ruins, and, presenting, as it does, destitution and misery and suffering on every hand, does not offer a place for cheerful relaxation from ship-board; and then Tarsus, the only other town near by, is in much the same condition, so the result is that it is seldom any one leaves the ship.

—Myron L. Fuller, who since his resignation from the United States Geological Survey has been engaged in the cranberry business in Massachusetts, will start in October on a tour around the world, his itinerary including Egypt, India, Ceylon, Java, Borneo, the Philippine Islands, China, Japan and the Hawaiian Islands. Mrs. Fuller will accompany him on the trip.—Harry P. Browne spent the summer in Boston on business.—Myron E. Pierce is very much in the public eye at present, owing to his participation in the three-cornered fight for state senator in the district comprising Wards 10, 11 and 25 of Boston. Last year the Class of '96 had Senator Haultman at the State House. Here's hoping that it will be Senator Pierce this year. The following article shows the high esteem in



which he is held. It was written last year, when he was representative in the legislature:—

Myron E. Pierce, of Boston, of the Class of '96, M. I. T., is a splendid example of a young man of wealth, brains and education consecrating himself to the service of the public. Such cases, common though they be in England, are rather rare in this country, where politics as a career is not regarded in the same degree of estimation as it is in the "mother country," nor in fact, it may be said, is it practised with the same ideals as there, except in rare instances, such as that of Representative Pierce.

Mr. Pierce supplemented his education at the Institute with a course at the Harvard Law School, thus laying an excellent foundation for the career in which he has, at a comparatively early age, distinguished himself; for it is less than thirty-five years ago that he first saw the light of day in the city in which he has always resided. Representative Pierce is one of those who regard it as a duty to take an active part in politics, and from his majority he has been actively identified with the Republican party in Ward 11, the Back Bay ward of Boston. For seven years he has served upon the Republican Ward Committee, and for four years he represented the ward in the lower branch of the Boston city government. The Boston Common Council has been much maligned, but to Representative Pierce it certainly was an excellent training school for his subsequent service on Beacon Hill. His ideals always of the highest, in the city government he was an earnest and persistent opponent of graft and pernicious legislation, oftentimes fighting the battle alone and unaided. The obnoxious and dangerous financial system of borrowing money on long-time loans for current expenses, such as street repairs, was fought so vigorously by Mr. Pierce as a councilman that he may be said to have been responsible for the practical abandonment of the system, which is largely responsible for the debt-ridden condition of the city today. His efforts in this direction won for him the highest commendation of the Good Government Association and of honest citizens generally.

In 1908, his first year in the House of Representatives, he was placed on the Committees on Federal Relations and Cities, and one of his first acts was to secure from the latter committee a favorable report on his bills to repeal the law authorizing the city to borrow \$1,000,000 a year indefinitely outside the debt limit for sewerage construction and to authorize the city to borrow its money for the construction of the separate system for surface sewerage inside the debt limit. He succeeded in putting both bills through the House. It was he who was responsible for increasing the state loan to fire-stricken Chelsea from \$700,000 to \$1,000,000.

This year he went still further in his efforts to better the financial system of Boston by putting through his Committee on Cities a bill to repeal all the acts of past legislatures authorizing the city of Boston to borrow outside the debt limit, except those loans for transit purposes. He was promoted this year by Speaker Walker to the chairmanship of the Committee on Federal Relations. No man in the House makes a deeper study of the bills which

come before it, nor has any one a better grasp on legislative subjects, especially those affecting Boston. His honesty, sincerity and ability, while they do not always command their votes, have won for him the respect and esteem of the "practical politicians" in the state legislature.

As organizing secretary and counsel for the American Free Art League, he has been a persistent laborer to have the duty removed from works of art, and personally appeared before the Committee on Ways and Means of the National Congress last November in support of the proposition. The result of his efforts may be seen in the provisions of the Payne bill, which admit free of duty the works of American artists residing abroad, those to be used for exhibition purposes and for the encouragement of art and those imported by societies and institutions.

—Mr. T. I. Jones, manager of the sales department of the United Light and Electric Power Company, New York City, resigned his position to become general agent of the Edison Electrical Illuminating Company of Brooklyn on September 15. Mr. Jones since his graduation has been identified with the American Telegraph & Telephone Company, also as illuminating engineer of the Nernst Lamp Company. During the past five years, in addition to his regular duties, he has been delivering for the New York Board of Education a number of lectures on electrical engineering and electric light and power problems. A number of articles have been contributed by Mr. Jones to the electrical press, among the more recent being a contribution on "The Growth of Alternating Current in New York City," appearing in the *Electrical World* a few months ago. At the last convention of the National Electric Light Association, held at Atlantic City, Mr. Jones read a valuable paper on the "Development of Revenue from Existing Customers."

—Mr. Jacob Lloyd Wayne has been calling upon his old friends and classmates in Boston. He brought news from Whitney, Stickney, Putnam, and Wall. The first three, together with himself, are in the employ of the Central Union Telephone Company of Indiana. Wall is engineer of the National Vehicle Company, and has charge, as such, of the designing of the National racing cars. Wayne is still single, and is taking his vacation all alone.

1897.

JOHN ARTHUR COLLINS, Jr., Sec., 67 Thorndyke Street, Lawrence, Mass.

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William J. Walther (I.) was married on Wednesday, July 21, to Miss Martha Dale Cole, of Dorchester, Mass. They will be at

home after October 15 at 18 Warner Street, Dorchester.—Charles Bevan Clark (I.) was married on June 26 to Miss Dorothy May MacGuire, of Rockville, Md. They will be at home after August 1 at The Mount Royal, Baltimore.

1898.

PROF. C.-E. A. WINSLOW, *Sec.*, 157 Walnut Street, Brookline, Mass.

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Weimer was married to Miss Bertha Cora Hartman at Schenectady, N.Y., on Friday, September 17. Mr. and Mrs. Weimer will be at home through the winter at Exmore Farms, Pine Grove, Pa.—Daly was married Wednesday, September 15, to Miss Evva Emslie, daughter of Mr. and Mrs. Holland Emslie, of Brooklyn, N.Y.—P. F. Johnson has moved again, this time from San Francisco to Berkeley, Cal., where his address is 2239 Derby Street.—E. F. Ayres has moved from Kingston to Poughkeepsie, N.Y., where his address is 38 South Cherry Street.—Willis sends a new address as follows: 2 A Avenue, Chapultepec, 20 Tacubayo, D. F., Mexico.—Godfrey published during the summer an *Elementary Chemistry* (Longmans, Green & Co.) of unusual interest and importance. The following four ideals are set forth, and are attained with extraordinary success:—

The author has desired to obtain simplicity, to reach the understanding of the student; to rouse the pupil to a realization that the science of daily life is identical with the science of the school-room; to include all the essential facts and theories which could be rightly assimilated in one year's work in elementary chemistry.

—Pratt returned from Cuba for a few weeks this fall, and took Belcher ('02) back with him to design filters for the city of Santiago. Pratt and Winslow are writing a text-book on "Sewage Disposal" in collaboration with Professor L. P. Kinnicutt, of Worcester Polytechnic Institute (M. I. T. '75).—A. H. Tucker's engagement is announced to Miss Eva Sophie Forté, daughter of Mr. and Mrs. P. A. Forté, of Springfield. Miss Forté is a graduate of Smith College, Class of '99, and was given the degree of A.M. by Radcliffe College in 1908. She is now instructor in French in the Normal College of New York city.—H. I. Lord was married on October 2, at Pontiac, Mich., to Miss Mary Norton, daughter of Mrs. John Dudley Norton. Mr. and Mrs. Lord will live at 550 Jefferson Avenue, Detroit.

1899.

HERVEY J. SKINNER, *Sec.*, 93 Broad Street, Boston, Mass.

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S. B. Robertson was married June 16 to Miss Anna Mason Welty at Alliance, Ohio.—J. A. Patch has returned to his work in Syria after spending the summer in this country, renewing the acquaintance of his many friends.—C. G. Barry is now connected with the engineering department of the New York Central & Hudson River Railroad. Barry has been working for some time on the new Pennsylvania Railroad tunnels under the Hudson River, but these are now nearly completed.—H. L. Morse, of the Coast Artillery Service, is now stationed at Fort Mills, Philippine Islands, having been recently transferred.—The following changes of address have been received: C. Gardner Barry, P.O. Box 463, Cornwall-on-Hudson, N.Y.—C. B. Cluff, care of The N. K. Fairbank Company, 4107 Castleman Avenue, St. Louis, Mo.—B. Herman, engineer of bridges, C. N. O. & T. P. Ry., Cincinnati, Ohio.—L. Johnson, 343 South Oak Park Avenue, Oak Park, Ill.—J. E. Lewis, 33 Barnard Street, Hartford, Conn.—W. O. Sawtelle, 4 Mercer Circle, Cambridge, Mass.—F. A. Watkins, 441 Hazel Street, Highland Park, Ill.—G. C. Winslow, Jr., care of Montgomery Reed, 60 State Street, Boston.—Professor Earle B. Phelps, Associate, American Society Civil Engineers, of the Massachusetts Institute of Technology, and Mr. Charles E. North, M.D., for three years director of the department of bacteriology of the Lederle Laboratories, have associated themselves as consulting sanitary experts, with an office at 30 Church Street, New York city, and with laboratories near by. They will give their attention to all matters of sanitation and preventive medicine, and especially to the improvement of water and milk supplies, methods of sewage disposal and the control of epidemics, working in co-operation with other engineers rather than attempting anything in the way of engineering designs and estimates themselves. Professor Phelps has been connected with the sewage treatment experiment station of the Massachusetts Institute of Technology for several years past, and has been engaged in other lines of engineering work, particularly with reference to sewage treatment, including studies of the disinfection of sewage. Dr. North has given attention to the sanitary production and distribution of milk supplies, and has also given consideration to the control of epidemics, water supply and other sanitary problems. Professor Phelps will continue his relations with the Massachusetts Institute of Technology and its



sanitary research laboratory, but his business address will be as given above.

1900.

INGERSOLL BOWDITCH.

GEORGE C. GIBBS.

RICHARD WASTCOAT.

PERCY R. ZIEGLER.

N. J. NEALL, *Sec.*, 12 Pearl Street, Boston, Mass.

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The returns at hand show that some sixty members of our class attended the reunion, either in whole or in part. They are: Allen, Ashley, Bowditch, Brickley, Brooks, Brown, Bugbee, Burnham, Burroughs, Charles, Clarke, Collier, Conant, J. B., Conant, F. N., Cutting, Draper, Dunbar, Durgin, Emery, Fitch, French, Hapgood, Harps, Howe, Hunt, Hurd, Jennings, Jouett, Kattelle, Langford, Lawley, Neall, Leary, Lincoln, Macpherson, MacRae, Ober, Osgood, H. E., Osgood, I., Penard, Price, Ripley, Smith, Southworth, Stearns, Swinson, Walworth, Warren, Wastcoat, Wentworth, Ziegler, Gibbs, Dorey, Ingalls, Tudbury, Beekman, Corliss, Reardon, Brigham, Brownell. The two most successful features of the program for us were the outings at Nahant and Nantasket, respectively. Some of the men had already begun the festivities at the Governor's reception and the City Club's smoker, but the first real class fun began on the steamer to Nahant. Collier took our pictures, and Bowditch instructed us in the class stunts, which had been planned for the next day. Owing to the insuperable difficulties, however, of sitting in each other's laps and playing "ring-around-the-rosey," and keeping the *tempo presto*, it was unanimously agreed to hunt for something else. When we arrived at Nantasket the following day, we found ourselves provided with Japanese parasols and brilliant large red poppies as buttonhole bouquets. As may be imagined, we cut quite a figure in the parade to the Atlantic House. The 1900 stunt consisted of a leap-frog race in four divisions, which wound up with a class yell and a hasty exit from the field. It may be stated without fear of contradiction that the general opinion of our stunt is far from complimentary,—in fact, some of the 1900 men who took part have privately declared that it was rotten. There should be some consolation, however, in the fact that it makes a good moving picture, and that scarcely any of the men recognized themselves when a picture was shown of us the same evening at the banquet. As a matter of fact, it is really a distinct achievement in the revival of our class interests to know that the fellows, at least, have played leap-frog together. There is good reason to expect that



something better may come in succeeding years. The most noteworthy feature of the "Pop" concert was the presence of Wentworth's little son,—the class baby,—who is now quite a little chap, and shows great promise for his future days at Technology. Contrary to our expectations, there was no special excursion of the 1900 class. It was found very difficult to find a suitable locality at a reasonable expense. Some of the fellows, however, did get together for an informal supper at the Thorndike, following our return from Nahant and preceding the "Pop" concert. These were Bowditch, Draper, Wastcoat, McPherson, Brooks, Fitch, Ingalls, Walworth, Harps, Emery, Ziegler, Howe, Dorey, Gibbs, Hurd, Lawley, Leary, Jouett and Neall. The festivities wound up with a theatre party on Thursday evening, to which Wastcoat, Leary, Wentworth, Lawley, Stearns, Ingalls and Neall came with their wives and sweethearts. Lulu Glaser in "Mlle. Mischief" provided the entertainment, and Mr. and Mrs. Wentworth had some delicious candy. We are happy to report that the casualties of our gathering were limited to only one person, Bugbee, who had the misfortune to have a fire bucket jump its mooring on the Nahant steamer and land on his head. Bugbee presented quite a gory aspect, but the damage was evidently not very serious, for he subsequently appeared at the "Pop" concert, looking perfectly intact. 1900 was honored by having three of its members on special committees for the work at large,—Bowditch on tickets, Ziegler on the management of the stunts at Nantasket and Neall on the baggage. We are still awaiting contributions to the class yell contest. We wish to remind the members of the class that a new creation of this character is very much desired, and, to add interest to the occasion, a prize will be awarded for the best yell. Several contributions have been made, but we do not feel that the possibilities of our class have been sufficiently exhibited. The preparations for the Class Book are moving along, and we hope that those of the class who have not yet sent in their data will do so shortly, before they are especially circularized on this subject, as well as the contributions. It will be of interest to the class to know that the responses to the request for subscriptions have been very encouraging, and show warm regard for the class. We have every reason to believe that our best desires for its financing will be shortly realized.—Harry Leslie Walker announces his association with Beverly S. King, formerly of Whitfield & King, of New York, under the firm name King & Walker, architects, Terminal Building, 41st Street and Park Avenue, New York, Studio Building, 90 North Forsyth Street, Atlanta.—In the *Boston Advertiser*, Sept. 13,

1909, the engagement is announced of Miss Clara Compton Girault, daughter of Mr. and Mrs. Peter L. Girault, Chicago, to Mr. Levi Brown Jennings (M. I. T. 1900), of Weston.—E. F. Brigham was married on September 14 to Miss Phyllis S. Lindsey, Church of St. Augustine, Santa Monica, Cal.—McMeen & Miller, electrical engineers, patent experts, giving special attention to telephony, with offices in Chicago and San Francisco, announce the association with them of Leigh S. Keith, who will devote his attention to engineering problems relating to telephony, electric light, power and gas, and will be particularly engaged in investigations and reports on public service systems and plants.—Batcheller is now at Mattapoisett, Mass., where he expects to be for some months. Batcheller has given up for the present, so he says, practically all work save some personal affairs, and hopes to see some of the men this year. We regret to announce that Batcheller has just buried his little son, William Field, who was almost three years old.—Gibbs spent part of his vacation assisting at a boys' camp, Sebago Lake, Me., and has been on a visit to Philadelphia and New York.—Wastcoat has just bought a devil car. He is now away on a vacation, and, if he returns alive, there may be much of interest to announce in our next issue.—Ever since Bowditch left Tech he has been planning to make up for his missing the freshman drill. As a member of the First Corps Cadets, he drove one of the commissary wagons in the late war between the Blues and the Reds around Boston. General Bliss claimed the decision for the Blue army because he had got around the flank of the defending army, but he had his work still cut out for him, for he didn't get by Bowditch as yet. Bowditch has this to say for himself:—

Some of the fellows may like to know something about the "war" which occurred between the Red and the Blue armies in the southern part of the State from August 14 to the 21st. I was not actively engaged, as my duties kept me with the baggage trains the days the Cadets went into action, but I had a good chance to see the administrative work.

The work of the division commissary was excellent. He had the food, and could issue it as fast as it was wanted, but the trouble came with the commissaries of the different organizations. There was plenty of food in camps, but on the march the men went without it for nearly twelve hours.

A great surprise to the officers was the way in which the automobile trucks stood up under the work. The roads were in very bad shape, especially the days it rained, and the trucks were never spared a particle. The machine with the Cadets was always ready, and was a great help when it came to hauling water and supplies. It also carried details of troops when they were ordered out in a hurry. Two machines with Battery A, Field Artil-

lery, carried one-inch torpedo boat guns, and did valuable service in holding the enemy at cross-roads. Pine-trees were fastened all around them, and, when they went into action, they formed part of the surrounding scenery. They were sent to Taunton and other surrounding places to help blow up bridges. Two others were used to carry the baggage of division headquarters, and I never saw a truck which was not able to do its duty. They will hold a very important place in the next real war. An amusing incident occurred just after I left camp with a baggage wagon. I heard several shots behind me, and shortly after a member of the signal corps came up in a buggy, and told me that the Reds had taken the camp I had just left, and he had escaped, leaving everything behind. Shortly after that I met a lot of troops coming towards me with the news that the Reds were ahead, and that the Blues had been ordered out of the country where I was going. With Reds in front and behind, I decided to wait until one o'clock, when the war would be over for the day. Shortly after making this decision, I received orders to turn back. When I got to camp that night, I learned that the attack on our camp was a fake, and had been made by some of our own men to create a little excitement.

The days appeared forty-eight hours long, for we were up at four o'clock some mornings and at two o'clock others. When noon came, we were not sure whether it was the next day or the day before. If anybody wants a good experience, he wants to break camp at two o'clock in the morning in a pouring rain and not much to eat, and then ride on horseback all day with a saddle several times too small and a livery stable horse which interferes behind. Walking is a pleasure after this.

As far as I can learn, this war game was of great instruction for all general, staff and field officers; but the line officers and the enlisted men did not get a great deal of good out of it. They learned what NOT to do the next time.

—The last time that Bowditch came down from Chocorua he met Tuck and his family. Tuck seemed just the same as he did ten years ago, and engineered the transportation of his wife and three children with great success. He was on his way to Haverhill, Mass., to spend ten days. He intended to come to the reunion, but was prevented at the last moment. He was glad to see that Course I. was well represented in the pictures.—Ziegler reports as follows:—

Kenneth Seaver was in town on business the last of August, meeting some of the fellows. For the last seven years he has been with the Harbison-Walker Refractories Company, first in the engineering department and at present in the sales. This company makes all sorts of brick for furnace linings, etc. Seaver has just written a very attractively printed and bound book, entitled "Study of the Open Hearth," which the Harbison-Walker Company are sending to all steel manufacturers.

I am about run dry of news,—in fact, I haven't been in the way of getting

any this summer. I learned incidentally that Jennings has landed a big order for furnishing a fine house in Chicago. Brooks is on his way to Boston again, he writes me, after having completed that job in the Adirondacks. Seaver said that John Campbell (Course III.) has lost a small child. I don't know whether it was ever reported in THE TECHNOLOGY REVIEW that McGowen (Course II.) lost his life while riding in the cab of an engine at Lawrence, Mass. I believe the engine was derailed, and he was killed.

I think we decided last spring that we were going to attempt to have monthly informal dinners at the Technology Club. It seems to me it would be a good thing to have a stated time every month for such times, so the fellows would know when they might expect to see each other in this way. If the time could be agreed upon in time for it to go into this REVIEW, it would be very desirable to mention it, I think.

—The class committee is arranging for a meeting of all 1900 men in Boston and vicinity at the Technology Club in the middle of November. Whereas last spring we had selections by Caruso, Sembrich, etc., we hope this time to have some of our own men entertain us. The plans are not yet matured, but due notice will be given.

1901.

R. L. WILLIAMS, *Sec.*, 30 Waban Hill Road, Chestnut Hill, Mass.

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Now that the summer is over and the men have returned home from their vacations, we hope their interest will turn to their college friends once more and that a goodly number will show up at our class meetings.—Edmond F. Brigham recently crossed the continent to be married, Tuesday evening, the 14th of September. The ceremony took place at Santa Monica, Cal. Phyllis Sabine Lindsey was the fortunate young lady, whom the class will gladly welcome to its ranks.—Charles F. F. Campbell gave a reception in Cambridge, September 2; to his parents, Sir Francis and Lady Campbell, who are visiting in this country from England.—Anthony W. Peters married Miss Ruth G. French April 17. He is now living in Brattleboro, Vt., and is assistant engineer for the J. G. White Company, Dummer, Vt.—Edward B. Cooke is blast furnace manager for the Warwick Iron and Steel Company. He is married, has two children, and lives in Pottstown, Pa.—One of our most distant classmates, we venture, is Horace Johnson, who lives in Waialua, Oahu, Hawaii, where he superintends the manufacture of raw sugar.—Arthur Ray is head of the drawing department of the Technical High School, Springfield, Mass. Since leaving Tech, he has been



in almost all of the United States, has been across Canada and over the line into Mexico. He has been to the Pacific coast three times.—J. R. Putnam has recently moved from Boston to Waterbury, Conn., where he has accepted a position with the Waterbury Clock Company.—Ralph H. Stearns is assistant engineer for the New York Board of Water Supply. He has been to Europe twice.—The following changes in addresses have been recently received: George A. Clark, Fort McHenry, Md.—F. Ward Coburn, care Toledo Furnace Company, Toledo, Ohio.—Donald A. Kohr, 135 Oxford Street, Dayton, Ohio.—Arthur Little, Reading, Mass.—J. H. Lohbiller, 106 South 12th Street, St. Louis, Mo.—E. P. Burdick, 311 Union Building, Newark, N.J.—Francis E. Cady, Drawer N, Cleveland, Ohio.—Stuart B. Miller, care E. I. Du Pont de Nemours Powder Company, Marquette, Mich.—H. C. Morris, 1 West 81st Street, New York, N.Y.—Ray Murray, Pleasant Valley, N.Y.—J. E. Ober, West Pennsylvania Steel Company, Pittsburg Building, Pittsburg, Pa.—P. A. Potter, 100 Williams Street, New York, N.Y.—W. J. Sayward, 343 Arcade Annex, Seattle, Wash.—William M. Vermilye, 116 Bedford Street, Boston, Mass.

1903.

F. A. OLMSTED, *Sec.*, 93 Broad Street, Boston, Mass.

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Mention was made in the last number of the REVIEW of the fact that Newman sailed for Europe a short time before the reunion. He and Mrs. Newman sailed May 14, going direct to Naples, touching at the Azores and Gibraltar. They travelled through Rome, Florence, Venice, Milan, the Italian Lakes and Switzerland to Paris. They then went to Sweden via Hamburg and Copenhagen, and spent two weeks with relatives. From there they went to England, and sailed from Liverpool to Boston. The whole trip lasted ten weeks. On his return Newman took a position as assistant engineer with French & Hubbard, 85 Beach Street, Boston, in their concrete construction department, having resigned his former position with William Wheeler.—Fales also indulged in European travel during the summer. He writes as follows regarding his trip:—

I was six weeks in Italy, Switzerland, France and England. Could not but be impressed with the large amount of money which has been spent in Italy upon highways and railroads, also with the cleanliness of Italian cities. Then the high art to which counterfeiting has been carried here is both a source of admiration and exasperation.



I shall never forget the views of the Matterhorn from Zermatt and the Jungfrau from Scheidegg.

Paris with its large squares, boulevards, public buildings and memorials was very interesting. The life and atmosphere there is unique as compared with any other place I saw.

In London one of the greatest surprises to a stranger is how the speedy motor busses dash through the streets with so few accidents. Our English cousins may be a bit slow, but they certainly are good dodgers.

—Jesse Joseph has recently resigned his position with Jones & Laughlin at Pittsburg, and has accepted a position as sales engineer with the Platt Iron Works Company, 100 Broadway, New York.—F. C. Reed was married the latter part of August, but up to the time of writing particulars have not been received.—Joyce was married June 10, Miss Ruth Conant, of Boston, being the bride. The wedding took place in Emmanuel Church.—Regan was united in marriage with Miss Mary V. Sullivan in Cambridge June 30.—Cox writes that the '03 men in New York are continuing their monthly informal dinners at the Technology Club, and it is hoped that any men in New York will try to attend when possible.—The following new addresses are noted: Mrs. Arthur Blunt, 14 Mt. Pleasant Street, St. Johnsbury, Vt.—Charles H. Porter, 143 Newbury Street, Boston, Mass.—Richard M. Field, 42 Broadway, New York.—W. R. Davis, 323 Jefferson Avenue, Scranton, Pa.—K. W. Endres, care Electric Storage Battery Company, Allegheny Avenue & 19th Street, Philadelphia, Pa.—Roger A. Burr, 80 Dufourstrasse, Zürich, Switzerland.—Thomas D. McNerney, care Stone & Webster, 147 Milk Street, Boston.—F. G. Babcock has his mail sent to Tolland, Conn.

1904.

R. A. WENTWORTH, *Sec.*, 426 Main Street, Amesbury, Mass.  
M. L. EMERSON, *Res. Sec.*, 161 Devonshire Street, Boston, Mass.

Please note change in the secretary's address. He has returned to Massachusetts as assistant to the president of the Merri-mac Hat Company, manufacturers of fur and felt hats, with factory at Amesbury.—On our last day in Saylesville, Charlie Barrett came in trying to sell a big locomobile to the manager of the bleacheries. The secretary had not seen him since graduation. Barrett has been for several years in the engineering end of automobile work, but has recently changed over to the selling organization of the Locomobile Company. His headquarters are in

Bridgeport, Conn., but he is on the road most of the time.—Late in August occurred the death of Mrs. Everett Hiller, following an operation for an abscess in the ear. Mrs. Hiller's friends included many of our classmates, who suffer a severe loss in her death. Our good friend and classmate receives our deepest sympathy in his great bereavement.—Arthur W. Bartlett was married on September 1 to Miss Flora Lenahan, of Lansdowne, Pa., in which place Bartlett has been living for some time. His business is in Philadelphia, as engineer for the American Water Softener Company on the design and assembling of water softeners and pressure and gravity filters. This wedding moves Charlie Haynes to observe that only Pete Underhill and himself remain unmarried of the Course X. bunch.—On September 7 Maynard Holcombe was married to Miss Eleanor Pearl Marshall, daughter of Mrs. Susan P. Marshall, of Washington. After October 15 Mr. and Mrs. Holcombe will be at home at 1325 Vermont Avenue, Washington, D.C.—Galusha got an excellent snap-shot of the reunion crowd, taken just before our class meeting on the rocks of Nahant.—Speaking of photographs, look up the July REVIEW, and notice how '04 looms up into prominence on the band-stand in the general group at Nahant. Also look up illustration No. 31, depicting the procession at Nantasket in which we constitute the entire procession.—G. R. Ainsworth is designing and selling lighting fixtures of ornamental metals and marble for Edward E. Caldwell & Co. at 38 West 15th Street, New York.—L. H. Asbury (IV.) is practising architecture in Charlotte, N.C. He was married April 30, 1908, to Miss May W. Crosby, of Boston.—Baum is at South Strafford, Vt., with the Vermont Copper Company. He is engaged in experimental work on a large local copper deposit in determining a method of working for copper, sulphur and iron.—H. W. Bull (I.) is vice-president of the Monarch Valve and Manufacturing Company of Springfield, Mass. He was married in 1903, and has three children, the eldest now being four years old. Bull has served on the Springfield Common Council.—Cary (VIII.) is salesman with the Leeds & Northrup Company, with office at 4901 Stenton Avenue, Philadelphia.—Alfred L. Coupe has been in business for himself for about a year in the firm of Coupe & Gray, doing a general engineering business, but specializing on concrete construction. His address is 408 Equitable Building, Louisville, Ky. He has built a church in Louisville, and has done a lot of sewer work for the city.—Allan Courtney is assistant general foreman of the Fort Wayne shops of the Pennsylvania lines west of Pittsburg.—Currier (XIII.) is making torpedoes for the government at the Torpedo

Station, Newport, R.I.—H. R. Davis is draughtsman with the architectural firm of Shepley, Rutan & Coolidge, of Boston.—Jack Draper is manufacturing paper-makers' felts at Canton, Mass. He is one of the directors of the Draper Brothers Company.—Dave Elwell is still with the Westinghouse Company, now being located at 165 Broadway, New York, as commercial engineer.—W. F. Goodwin (VI.) is treasurer of the Bullock-Goodwin Company, of Biddeford, Me., electrical engineers and contractors. He was married in 1903.—L. R. Grant (VI.) is assistant superintendent of transportation of the Seattle Electric Company, Seattle, Wash. He was married in 1906 to Miss Ethel Josephine Austin, and has a daughter two years old.—Charles F. Hunter has an office in the capitol at Albany, N.Y. He is chief inspector of electric meters for the Public Service Commission of the Second District. He has met two Tech men in seven years who were of '04. Look him up when you go to Albany.—William A. Hyde (VI.), whose address is Bureau of Ordnance, Navy Department, Washington, is electrical expert for the Navy Department on electrical apparatus installed in turrets of all war-vessels. His work includes the drawing of specifications for such apparatus, as well as the following up of tests and performance.—Arthur H. Langley is director and salesman for the W. C. Langley Furniture Company, Waterbury, Conn.—H. M. Leh is a manufacturers' sales agent, with offices in the Commonwealth Building, Pittsburg, and in the Real Estate Trust Building, Philadelphia. Most of his business is in paints, small tool hardware, iron and steel.—H. K. Lowry is at Milwaukee with the Chicago, Milwaukee & St. Paul Railroad. As assistant signal engineer, his territory is nine thousand miles in extent, and his duties cover all kinds of technical and general administrative matters.—John R. Marston (V.) is chief chemist with the Selby Smelting and Lead Company at Selby, Cal. This is about thirty miles from San Francisco, on San Pablo Bay.—S. J. Martenet, Jr. (V.), is assistant superintendent of the Crocker Works of the American Agricultural Chemical Company at Buffalo, N.Y. At his plant they manufacture chemical fertilizers and sulphuric acid.—Since the first of the year Mason has been in business for himself at 93 Orleans Street, Chicago, as consulting chemical expert.—Guy Palmer was married in 1906 to Miss Jessie L. Traer, of Vinton, Ia. He is assistant division engineer in the maintenance department of the Chicago division of the Baltimore & Ohio Railroad.—Peiler is a life insurance engineer with the actuarial department, Aetna Life Insurance Company, at Hartford, Conn.—George Powell is engineer with the Loomis-Manning Filter Company at 828 Land Title

Building, Philadelphia.—J. W. Shaw (III.), for some time mill superintendent of the King Edward Mine at Cobalt, Ontario, has been appointed manager of the Cochise mine at Cobalt.

1905.

GROSVENOR D'W. MARCY, *Sec.*, 246 Summer Street, Boston, Mass.

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C. E. Atwood, in replying to the reunion notices, wrote:—

I have started the "Technology Club of Chile," with at present a membership of one. I will say for myself, and I think the other members are unanimously of the same opinion, that we would all walk, fly or swim, to be present at the reunion, if it were even next to possible. However, as it is *absolutely undoable* at present, we must postpone the trip till later with regrets.

Atwood's address is care J. K. Robinson, Iquique, Chile, S.A.—The secretary learned from Sid Strickland's mother that he is expected home in November. He has been doing very good work at the École des Beaux-Arts, but had a nervous breakdown from overwork. His wife and children came home, after spending June with him in Spain, only to receive a cable shortly after landing that he was seriously ill. He is better now, and expects to be able to finish up and return in the fall.—Charlie Johnston has left Mexico to take a position as manager of the Winchester Rock and Brick Company, with offices at 110 State Street, Boston.—George Jones announces that he has resigned as assistant examiner in the United States Patent Office, and has opened an office for the practice of patent, trade-mark and copyright law at 1609 Fort Dearborn Building, 134 Monroe Street, Chicago. In a postscript, referring to his card appearing in this number of the REVIEW, he says, "From the number of degrees you might mistake me for a thermometer, so prepare for the worst."—Philip G. Darling, with Manning, Maxwell & Moore, Inc., at their Bridgeport factory, read a paper on "Safety Valve Capacity" before the American Society of Mechanical Engineers on February 23. It was printed in the *Engineering News* of March 11 and subsequently in many other engineering journals here and abroad—Edwin B. Snow reports that he has a good position with the Burroughs Adding Machine Company and expects to be married shortly.—H. J. Macintire has resigned from the National Lead Company to take a position in the Lawrence Scientific School, and announces his engagement to Miss Elizabeth May Jelliffe, of Brooklyn.—Eugen F. Kriegsman wrote shortly before the reunion that he hoped to be able to come, but is a prac-



tising civil engineer in Berkeley, Cal., and has a growing amount of work of important nature to look after, which evidently kept him from coming.—J. A. Pitts wrote from Johannesburg that, if he was only a short distance away, like Mexico or Seattle, he would surely have come to the reunion, but eleven thousand miles was too long a walk. He expects to visit the United States in about two years, and hopes to find some of the old crowd.—John Glidden sent regrets from Peru that he could not be present, and asked the secretary, if by any chance he should get off the wagon at the reunion, to take “just another one” for him.—W. T. P. Mader wrote from Seven Troughs, Nev., that he had exchanged his slide rule for a pack-saddle several æons ago, and until they get to carrying bullion on the stage any one in camp who can make a noise like a piece of money is straightway surrounded by a host of admiring friends. He says, although his stay at Tech was wofully short, it was long enough to endear it to him, and he feels as loyal to '05 as any member who received his sheepskin.—Ned Jewett could not come, because, as manager of the Houston office of H. L. Stevens & Co., he had to deliver finished a theatre building in that city by October 1.—Herbert Wilcox couldn't come because he had to stay home and amuse the baby, but will be there next time and bring the whole family.—Ben Lindsley sent best wishes and regrets from Patagonia, Ariz., where he is with the Mansfield Mining and Smelting Company.—Walter Bent sent his love to the boys, and announced the birth of Walter Frederick Bent on May 1. Said he always knew Bobby Folsom would be an old bach, but about Zeke Coffin and Bob Lord,—there was no excuse for them.—Bill Motter sighs from Orogrande, N.M., “Oh for just one ‘We are Happy!’”—Russell Willson, who was with the class for one year before entering the Naval Academy, sent regrets and best wishes from the United States steamship “Milwaukee,” then at Bremerton, Wash. His address, as well as those of R. C. Grady and W. A. Hall, is care Navy Department, Washington, D.C.—Seedy Klahr expected to be with us at the reunion, but was disappointed, as was Leonard Bushnell.—H. M. Edmunds sent best wishes for success of the “only Class” from 71 Upper Tulse Hill, Antron, S.W.—J. C. Eadie expected to be able to come, but instead took a position with Siemens Brothers, Limited, at Castletown, Isle of Man, which was too far away.—Dan Harrington was at camp one day, and then had to leave on his trip of visiting the different plants of the DuPont Powder Company, preparatory to starting up the newest and largest plant, near Seattle, of which he is to be superintendent. Dan did not talk much about it, but after he had gone the secretary learned



that at a recent fire in the Barksdale plant some of Dan's workmen were inclined to bolt, but he secured a shot-gun and, threatening to shoot any man who ran, got a large amount of dynamite safely out of danger, and averted a catastrophe.—Roy Allen and his brother, who made a camping and prospecting trip in North-western Canada this summer, had a rather thrilling experience. While crossing a swift river, their horses and outfit were swept away, and all lost but one horse, on which they had to get back to the nearest civilization, ninety miles, with snow on the ground and nothing to eat but some birds caught on a nest.—Joe Daniels made a trip to Scotland, England and France this summer, and reported that he had a "bully" time.—Mr. and Mrs. Claude A. Anderson announce the birth of Townsend Canfield Anderson on April 3.—The engagement of Miss Elizabeth Curtis Kendall, of Winchester, and Fred H. Abbott, of Houghton, Mich., is announced, also that of Miss Isabel L. Turner, of Bath, Me., and Arthur E. Russell.—Victor H. Paquet was married on June 2 to Miss Mabel M. Haggett, of Edgcomb, Me. Vic reports interesting times in connection with the tests of the record-breaking "Flusser," on one of which the circulating pump got clogged, and he and two others had narrow escapes from getting scalded by live steam blowing through the weighing tanks.—Herman Eisele and Miss Bertha Marguerite Uhl, of Cleveland, were married on the 25th of August.—Edwin B. Snow is to be married on October 9 to Miss Marian Graham, of Milltown, N.B.—On the 14th Grosvenor D'W. Marcy and Miss Helen F. Carter, of Ashmont, are to be married, and on the 20th Warren K. Lewis and Miss Rosalind D. Kenway are to be married in Newton. Miss Kenway is Hub Kenway's sister.—On May 4 a daughter, Jeanette Pierce, was born to Mr. and Mrs. Charles E. Smart at Greenfield, Mass.—W. L. Spalding has recently been elected professor of electro-chemistry at the University of Buffalo. He has been giving a course of lectures there, and the title has been given him in recognition of his standing as an expert in this line.—Leonard W. Cronkhite, who left the Institute our second year to go to Brown University, and was sent from there as a Rhodes scholar to Oxford, has returned, and is now treasurer of the Industrial Starch Company, manufacturers of mill starches, also treasurer of the Meiklejohn-Cronkhite Company, toy manufacturers. On May 14 of this year he married Miss May H. Hartwell, of Providence, and is living in Hingham, Mass. His business address is 369 Atlantic Avenue, Boston.—H. H. Nelson is in the Inspection Department of the Associated Factory Mutual Fire Insurance Company, address 31 Milk Street, Boston, Mass.—"Mike" Mackie is president of the

Commercial Auto Company, Milwaukee, Wis., and wants to know "what in thunder the rest of the bunch is doing."

1906.

FRANK A. BENHAM, *Sec.*, 164 High Street, Room 331, Boston, Mass.

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The secretary will be glad to hear from any of the fellows; if you have time for nothing more, drop us a post-card. Let us hear where you are and what you are doing; by so doing, it will greatly help the secretary, and will be of interest to all the fellows.—Bardwell, who has been working on Volumes III. and IV. of Professor Richards' book on ore dressing, is looking for another job. The books are now published.—Fay Libby is still at the Vulture Mine in Wickensburg, Ariz.—McKay was in Boston recently, spending his vacation.—Matheson is working in the talc mines in Gouverneur, N.Y. His address is 208 East Main Street, Gouverneur, N.Y.—Mears is still with the Nevada Consolidated Mining Company.—Watt is now in Boston; during the coming year he will be Professor Richards' assistant.—Arthur Wells is in the East, spending his vacation; in September he will return to Utah.—Joe McKernan is still with P. M. Blake, civil engineer, Newtonville, Mass.—Wetterer is back in Boston for an indefinite period. He is still working for Stone & Webster.—Mr. Bruce R. Honeyman was married to Miss Marion Blakeley, of Tacoma, Wash., June 2, 1909.—Campbell, who has been working in Washington in the United States Department of Architecture during the summer, expects to return to Carnegie Institute in Pittsburg, where he will teach during the coming year.—Mark Place writes that he is just recovering from an attack of typhoid fever which he contracted in North Dakota, where he was working for the C., M. & S. P. R.R.—Indirectly we heard that Kenneth H. Derque was recently united in marriage to Miss Jane Murray, of St. Paul.—The following item was taken from the *Boston Journal* of September 4: "Miss Margaret C. Fuller, of Exeter, a former student at Radcliffe College, has left here *en route* to Portland, Ore. Upon her arrival in the Pacific Coast city, Miss Fuller will be married to Edward M. Eliot, an engineer of that place."

1907.

BRYANT NICHOLS, *Sec.-Treas.*, 143 Garland Street, Everett, Mass.  
W. W. BIGELOW, *Res. Sec.*, 399 Lexington Street, Waltham, Mass.

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I. *On the Part of the Secretaries.*

Important events have taken place with our first secretary. On September 14 Bryant Nichols and Miss Elsie L. Fogg were married at the First Congregational Church in Chelsea. Our class was honored by Harold Wonson, who acted as best man. Arthur Jealous and Bob Thayer were among the ushers. A reception was held after the ceremony at 143 Garland Street, where some other members of the class had an opportunity to congratulate Bryant in his new home. The best wishes for the future to him and also to Clarence Bowen, who, we have learned, is to be married on October 15.—Congratulations are due to J. M. Gaylord and Lawrence Allen. Cards have been received from Mr. and Mrs. James M. Gaylord and from James Macdonald Gaylord (July 13). Lawrence Allen, Jr., was born August 28.—Clarence Howe has just finished his summer's work with J. R. Worcester & Co., of Waltham Mass., and returns to Halifax, N.S., to resume his duties as professor of civil engineering at Dalhousie University.—J. H. Leavell sustained a serious injury to his foot. It was badly crushed by being caught in machinery. It was at first expected that he would have to have it amputated, but it is believed now that it can be saved. He is at present staying at Quincy, Mass.—The complete list of our district correspondents is now as follows: New England, A to G, C. E. Allen, Spencer, Mass.; H to R, H. S. Wonson, M. I. T.; R to Z, B. Nichols, 143 Garland Street, Everett, Mass. New York, S. R. T. Very, 410 West End Avenue, New York, N.Y. Washington, D.C., G. A. Griffin. Southern, O. G. Fales, 418 Common Street, New Orleans, La. Chicago, J. M. Frank, 3810 Grand Boulevard, Chicago. Pittsburg, M. E. MacGregor. Denver and Rocky Mountains, J. M. McMillan, Denver Gas and Electric Company, Denver, Col. Pacific Coast, J. W. G. Hanford, E. 1913 Providence Avenue, Spokane, Wash. Foreign, W. W. Bigelow, 399 Lexington Street, Waltham, Mass.

The idea of having district correspondents is, of course, to help us gather class news systematically. If you have any news, don't wait for a correspondent to worm it out of you. Send it to any of us. We want to hear from you.

II. *Letters.*

Charlie Allen writes from Spencer, Mass.:—

I guess I have settled down here in the old town for the rest of my working days. You know I have gone in with a shoe manufacturing company here, and like the business. There is enough of complexities in the business to make a fellow use his brain so much that he is reminded of the "applied" and "structures" of the old days.

—M. E. McGregor sends us correspondence.—Sidney Wells says he enjoyed the last reunion so much he is already looking forward to the next one.—Harold Wilkins is in the concrete engineering department of the General Fire-proofing Company, Youngstown, Ohio. He was compelled to give up a very good opening with the Republic Iron and Steel Company because of a trouble with his knees.—T. W. Roby, Jr., has worked through the apprentice course of the McClintic Marshall Construction Company of Pittsburg, and is now in the draughting-room of that company in their Rankin plant—Van der Stucken is with the same plant. We have also to put Van der Stucken on the list of married men.—From Oil City, Pa., D. E. Russ writes:—

So the Class of '07 desires to "know my deeds." Well, then, listen to the chronicles of the Old Married Man. I say "Old Married Man," because the happy event took place as long ago as June 30, 1909, when I was married to Miss Blanche L. Walton, of Wakefield, Mass. As to occupation, I am president of the Russ Manufacturing Company and superintendent of the Siverly Works. These works consist of three buildings, one 50 feet by 150 feet, one 32 feet by 45 feet, and one 32 feet by 36 feet, all two stories in height. The works are located on the Allegheny Division of the Pennsylvania Railroad, on about two acres of ground. We make a specialty of gelatine for Moving Pictures and Photographic Purposes. I guess this will fill all the space I am entitled to, and so I will "ring off" and give some one else a chance. Hurrah for '07!

—M. E. MacGregor writes of himself,—

I am to be in the Pawtucket (R.I.) high school this year in charge of the mathematics, and hope to help some fellows here enter Tech next fall.

—Hanford writes from Spokane, Wash.:—

Since the first of the year I've been steadily at work, most of the time holding down a "civil" job instead of mechanical. The 1st of August I changed from an unsatisfactory to a satisfactory position, the latter with a consulting engineer having irrigation and hydraulic power plant work on hand. This is a combination of the different branches of engineering, and I shall like the work. There is also an opportunity for advancement in a good line.



—Turnbull writes from the Hampton Institute, Va.:—

Well, after I left the bunch, I went with the New York Central, and lived the simple life at home, until the cyclone came, which struck me as well as many others. After being up in the air awhile and roosting in the tops of two or three trees, I blew down here to a very interesting place. This is the pioneer industrial school for negroes, as you all know, out of which Tuskegee and all others have grown. I hear that Terrell ('06) is in the same business out in Texas, and hope to have a visit from him soon.

—From Chipman, department of mines, Geological Survey, Victoria B.C.:—

My life this summer has been full of work and the finest kind of experience, but, somehow, thoughts of the old days and old friends come up every once in a while. Life and work now are too good to wish them back again, but I would like to pick out certain spots in them and have the old enjoyments once more. I am still with the survey, and, if the character of the survey develops according to present indications, I'll probably want to stay always. I have been glad every day since June, '08, that Canada is my country, and the future of the survey and the country makes me proud of them both and expectant of great things.

As you know, I was here last year, and am here again. This year as assistant to R. H. Chapman, of the United States Geological Survey, who has been loaned to us to assist in the organization and development of our young topographic branch. He has had nearly thirty years of experience with the United States Survey, and I was more than pleased to be sent out as his assistant. The opportunity looked good to me, and I have stuck pretty closely to the job all summer, doing my little part to make good.

You threaten to come to Ottawa, and, if you do, I'll pretty near kill you with a touch of real Canadian winter life. Even now I am looking forward to the snow and the skiing, the skating and the tobogganing that we have. It is certainly a dandy life that we have in the winter.

This also has its good features. In New York, hot nights, think of me in camp, sleeping with five thicknesses of heavy blanket and only a sweater for a pillow. If the days are hot, think of me on some mountain-top, shivering in the wind, with fingers too numb to work an instrument. Also, if you are enjoying yourself with pleasant company and stuff that fizzes, think of flies so bad that full-grown men will lie down and cry, with blood streaming all over their faces. Think of these things and then go at your own little job hard, and know that you are happy.

—Sam Very has sent news from the New York district: From Carl J. Trauerman:—

I am on the editorial staff of the *Wall Street Journal*, doing mining and industrial investigating and writing, incidentally picking up an acquaintanceship with the big men of "The Street" and learning something about the financial side of mining and other corporations.



—From Harry N. Burhans, Burhans & Black Company, Syracuse, N.Y.:—

I started in the hardware business about two months after Commencement, and have been at it ever since. Expect to stay at it as long as it lasts, as I do not see any chance for getting away from it. It is very fair, so I suppose I have no kicks coming. I do not know of anything else of interest around here, except that we have a Central New York Alumni Association of about twenty-six members, and we get together about every month at one or the other of the houses of the members and have a smoke.

—John T. Fallon's writing paper is headed Aymar Embury (II.), architect, 1133 Broadway, New York: "Am now accepting money from the above, with very enjoyable work and a great deal of it."—Arthur T. Remick, architect, writes from New York:—

I am just finishing my first year of practising in New York with success, and a bright future. Of course, you know, previous to that I spent more than half a year travelling abroad.

—From Bonta, Syracuse, N.Y.:—

I am still in the same position with an old Technology man, Alfred T. Taylor, and hope to stay on indefinitely. Ours is an out-and-out Tech office, what there is of it. The one steady draughtsman besides myself we are sending to Tech this fall for the special two-year course, and during the months of August and September we have Winston Phelps with us.

Work in our office at present seems to multiply faster than we can handle it, and prospects for this coming winter are exceedingly bright. I am particularly glad of my position, because, being in a small office, I am called upon to give fully as much, if not more, time to specification writing and superintendence than to drawing.

—Sam Very doesn't say much for himself, but the indications from his letter-head are that he is in business for himself as an architect. Chipman promises Sam shall design him a bungalow when Chip marries.

### III. *Changes of Address.*

The district correspondents are requested to change their list of class members from the changes of address as they are published in the REVIEW: P. L. Adams, 172 West Canton Street, Boston, Mass.—R. C. Albro, 69 Gainsboro Street, Boston, Mass.—J. M. Barker, 117 College Avenue, Elmira, N.Y.—Rutherford Bingham, 1019 16th Street, Washington, D.C.—W. B. Cain, 10 Bates Street, East Weymouth, Mass.—J. S. Coupal, 821 East 4th Street, South Boston, Mass.—W. D. Davol, 107 Sycamore Street, Somerville, Mass.—L. C. Hampton, Webb City, Mo.—E. W. James, 61 South Highland Avenue, Ossining, N.Y.—W. F. Kimball, 84 State Street

(Room 513), Boston, Mass.—J. H. Leavell, care Tom Jones, Buffalo Mine, Cobalt, Ontario, Canada.—H. C. Libby, American Bridge Company, Pencoyd, Pa.—Howard Marvin, 14 Giles Avenue, Beverly, Mass.—K. Moller, 29 Weybosset Street, Providence, R.I.—W. P. Monahan, Ophir Tunnel, Smuggler, Col.—H. L. Moody, 508 Cranston Street, Providence, R.I.—F. A. Naramore, 812 Marshall Street, Portland, Ore.—A. T. Remick, 3 West 29th Street, New York, N.Y.—R. C. Sampson, 22 Washington Street, Medford, Mass.—J. E. Tresnon, 95 Summer Street, Everett, Mass.—J. D. Whittemore, 159 Washington Street, Newton, Mass.—W. L. Woodward, 1513 16th Street, Washington, D.C.

1908.

JOHN T. TOBIN, *Sec.*, care Virginian Railway Co., Norfolk, Va.  
 RUDOLPH B. WEILER, *Res. Sec.*, 26 Brooks Street, Brighton, Mass.

The following engagements have been announced: Miss Myra A. Bates, of Whitman, Mass., to Miles Sampson.—Miss Julia M. Brown, of Cambridge, to H. C. Elton.—R. E. Schirmer was married on July 22 to Miss Helen Robinson, of Pittsburg, Pa. They will reside at Idaho Springs, Col.—E. R. Smith was married on June 13 to Miss Annie K. Kalber, of Roxbury. They will live in Malden.—Lawrence C. Hampton was married on April 21st to Miss Harriet M. Clark, of Grand Rapids, Mich. He is located at Cleveland, Okla., where he is engaged in zinc mine and oil well work.—W. A. Morris writes from Twin Falls, Ida., under date of May 31:—

I just received your letter announcing the reunion, and am very sorry that I cannot be there. The mail service here is very poor, as I am only forty miles from the railroad, so you will please excuse me for not answering before this. If you see any of the '08 Civil Engineers, please give them my best. Enclosed, you will find check for my class dues for '09.

—Emerson F. Lyford writes on the letterhead of the Cudahy Packing Company, South Omaha, Neb., under date of June 7:—

My business address is at the top of this letter, and my home address is 1218 North 26th Street, South Omaha, Neb. I have an excellent position as chemist for this company. The chemical work is in charge of Mr. Wilson H. Low, an old Tech man, and there are two other assistants besides myself. The work is pleasant, and the experience will prove very profitable, I am sure. . . . I deeply regret being unable to attend this year's reunion, but shall endeavor to be present in 1910. Give my best regards to any '08 men you may see who know me, especially Course V. fellows.

—A. T. Hinckley writes from the National Carbon Company, Clarksburg, W. Va.:—

Just a line to let you and the other fellows of '08 know that I am down here in the land of hog meat and hominy as chemist for the National Carbon Company. If you know of any of the fellows being around in this part of the world, I wish you'd let a fellow know, and we'd do our darndest for a private reunion.

—The following is a clipping from the Boston *Transcript*, Sept. 22, 1909:—

Tsok Kai Tse, of Canton, China, is registered at Colorado Springs. He is one of a number of young men who were sent to America a few years ago by the Chinese government to be given a technical education, with a view to introducing modern methods in the Chinese empire. Tsok Kai Tse was an earnest student in China, and, when the government advertised that an examination would be held to determine which of the young students would be sent to America at the expense of the government, Tsok Kai Tse prepared for the test, and passed with honors. He had been studying English for five years, and his knowledge of the language assisted him materially.

He was sent to the Institute of Technology at Boston, where he studied for five years. He afterward took a post-graduate course, and received the degree of Master of Science. Since last June he has been travelling under a commission from the Chinese government, investigating modern gold mining and milling methods. He will go to Cripple Creek, and will later visit the gold mining camps in Arizona and Nevada.

—We regret to hear the following from Joe Reid, under date of August 6, from Canton, Miss.:—

I'll not be in Boston again for several months. After a six weeks' stay at the Massachusetts General Hospital for rheumatism, I came home just a few days ago. I have a real case of it, and can barely hobble along,—much like an old decrepit gentleman of eighty,—but I am improving slowly, and, though it may take several months, I hope to be myself,—young again.

—The resident secretary is glad to say that to date, October 7, one hundred and fifteen fellows have paid their dues for 1909, one dollar. It is hoped that those who have not yet done so will remit, as the year is drawing to a close. Several reply cards were received minus the signature (as well as the remittance). Was yours one of them? Your resident secretary has just returned from the Panama Canal, where he has been spending the summer, but is now back at the old stand at the 'Stute.—At last we have heard from the long lost "Spike" McGuigan. He is with the F. H. McGuigan Construction Company, general contractors, 611 Continental Life Building, Toronto, Can. He says that he has moved around so much

that he has lost track of most of the fellows, and now wants to hear from them. The following changes of address have been received: C. D. Putnam, 127 Angell Street, East Side Station, Providence, R.I.—A. C. Sloss, Dallas Electric Light and Power Company, Dallas, Tex.—W. I. Keeler, P. O. Box 9, Hartford, Conn.—R. Ogarrio, 6th Heroes 103, Mexico City, Mex.—C. L. Hussey, 1547 Smith Street, Providence, R.I.—P. J. Hall, 549 Fullerton Building, Chicago, Ill.—I. M. Guilford, West Cheshire, Conn.—C. N. Draper, 1421 Arch Street, Philadelphia, Pa.—L. A. Clark, 108 South Main Street, Kewanee, Ill.—C. H. Bangs, 45 Town Street, South Braintree, Mass.—H. A. Rapelye, 500 Westinghouse Building, Pittsburg, Pa.—E. L. Brown, 3517 Lucas Avenue, St. Louis, Mo.—H. L. Fletcher, Edison Electric Illuminating Company, 39 Boylston Street, Boston, Mass.—W. C. Folsom, 2105 First Street, N.W., Washington, D.C.—F. E. Goodnow, 540 Washington Building, Chicago, Ill.—H. W. Griswold, United States Engineer Office, Custom House, Nashville, Tenn.—W. W. Karnan, 1818 Wright Building, St. Louis, Mo.—C. C. Kinsman, 424 Prairie Avenue, Decatur, Ill.—E. H. Newhall, 238 Summer Street, Lynn, Mass.—F. N. Peirce, 252 Franklin Street, Newton, Mass.—H. J. Ruggles, 65 Wendell Street, Cambridge, Mass.—L. H. Sutton, 1331 Fairmont Street, Washington, D.C.—C. Youngerman, care Grosvenor & Atterburg, 20 West 43d Street, Yonkers, N.Y.—F. K. Belcher, 204 Columbia Heights, Brooklyn, N.Y.—C. A. Brown, Room 914, 6 Beacon Street, Boston, Mass.—D. Cairns, 171 Townsend Street, Roxbury, Mass.—A. W. Heath, 147 Milk Street, Boston, Mass.—H. W. Hoole, 222 10th Street, Milwaukee, Wis.—R. Y. Kennard, 98 Main Street, Winsted, Conn.—W. B. Kirby, 502 Wooster Street, Wellesley Hills, Mass.—E. A. Plumer, 96 Federal Street, Newburyport, Mass.—W. E. Poor, 20 Sylvan Street, Danvers, Mass.—J. B. Sando, 112 Huntington Avenue, Boston, Mass.—A. E. Skillings, 26 Milford Street, Boston, Mass.—C. M. Steese, Mt. Holly Springs, Pa.—H. E. True, Newburyport, Mass.—G. J. Venn, 24 Institute Road, Worcester, Mass.—Kurt V. Vonnegut, 1069 Beacon Street, Brookline, Mass.—D. B. Myers has given up his position with Mine la Motte in South-eastern Missouri, and has opened an office in Los Angeles, as a mining engineer.—Leo Loeb is instructor in thermo at Rensselaer Polytechnic Institute, Troy, N.Y.—Ben Bullard is with the Utah Light and Railway Company, Salt Lake City, Utah.



1909.

CARL W. GRAM, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

After being present at such inspiring scenes as took place during alumni week last June, and witnessing how full of enthusiasm and Tech spirit the older grads were, '09 surely ought to try to stick together and be as loyal alumni as possible. Now the first requisite for a good alumnus is to join the Alumni Association. The yearly dues are \$2, and this includes a subscription to THE TECHNOLOGY REVIEW, which will thus insure keeping in touch with the other fellows of the class, as the addresses will, so far as possible, be kept up to date. The REVIEW is absolutely the best way to get a line on the Institute affairs, so dig up the necessary wherewithal, send us your address, and tell us what you are doing. Also, if there is some other chap located near you, throttle him, and compel him to do likewise. Thus far the secretary has received only three letters from fellows in the class. W. Craig Ferguson (II.) writes from Walla Walla, Wash., that he is out there working with Eugene Hunt, an old '09 man, and, as he is a long way from God's country, would be tickled to death to get any news from the fellows. Address is care Gilbert Hunt Company, Walla Walla, Wash.—J. Stewart Peirce (III.) says:—

For the present I am located in Tulsa, Okla., with an independent oil producer. It is a great country out here, and I am surprised that there are not more Tech men in this vicinity. The weather is a little warm at present, for the thermometer reaches between 105° and 111° almost every day.

Address is care P. D. McConnell, Tulsa, Okla.—“Bill” Kelly has gone “across,” to study at Leipzig. In a letter to the secretary he says in part:—

I landed at Bremerhaven a month ago to-day (September 26), and since then have been to Bremen, Hannover, Hamburg, and Berlin. I stick to H's and B's, but have no P's or C's to my credit yet, and only one “L,”—Leipzig. Next week I am going to live with Ed. Williams' ('08) brother, who is here studying medicine. Christmas we are going to Rome to see Ed, who will be there for three years, as you know he won the “Prix de Rome” last year in Course IV.

—There are a big bunch of '09 men back at the 'Stute this year. Mollie Scharff, as “President's Assistant,” is still looking out for our welfare. He also has charge of the Union dining-room, which is a bigger proposition than ever. There are twenty-nine men back



as assistants; and due to the fact that we had such a bunch of "fussers," Tech Show men and fellows interested in all the activities, '09½ is too numerous to mention. The assistants are as follows: Course I., "Art" Shaw, "Doc" Lovewell, M. W. Rue, W. W. Clifford and F. R. Faulkner; Course II., "Dick" Ayres, Willard, Nickerson and Smith; Course III., "Ted" Chapman; Course V., Christie, Connolly, Healy, Trenthardt and St. John; Course VI., R. C. Glancy, G. H. Gray and C. L. Dawes; Course X., "Jack" Elbert, "Nut" Campbell, Carl Gram, "Spec" Paine and L. R. Forrest; "Lou" Beers and ("Blank") Blankenbuehler intended returning, but decided differently during the summer, and have gone into business; Course XI., R. W. Gilbert; Course XIII., K. T. Blood; Course XIV., "Lord" Hersey, "Bill" Read and G. E. Washburn. Following are the business addresses and such notes as the secretary was able to get. This list would be much more complete if you fellows would invest one cent (\$.01) in a postal card, write your own name, address (and such part of your last three months' experience as you care to pass along) on the back, the secretary's address on the front, and drop the card in a mail box.

Course I. B. Y. Burgher, Penn Bridge Company, Steelton, Pa.—J. C. Dort, American Bridge Company, Chicago.—L. J. Towne, United States Government Reclamation Service, Reno, Nev.—K. Madenigian, Department of Bridge Design, New York Central Railroad.—E. D. Merrill is with the Union Pacific Railroad near Denver.—T. F. Hickerson is teaching structures and bridge design at the North Carolina University.—P. Parker is working on the Cambridge Subway.—Dan Pepper is with the South Pacific Railroad in Arizona.—K. J. Campbell, assistant superintendent of Gas Engine Works, Mt. Vernon, Ohio.—H. W. Congdon, W. D. Greene and C. W. Radford are with the American Bridge Company, Brooklyn, N.Y.—"Tug" Wilson has been spending the summer shooting in the Adirondacks.—K. C. Gaynor has opened an office of his own in Sioux City, Ia., and is doing considerable contract work.

Course II. M. J. Cole is with a constructing engineer, L. B. Dow, Boston.—F. J. King, Linde Air Products, Buffalo, N.Y.—R. V. Zahner with Riter Conway, Pittsburg.—Rountree is teaching in Newberry College, South Carolina.—Bullard is with the Commonwealth Electric Company, Chicago.—"Reg" Millard is supposed to be somewhere in the Province of Quebec.—Hartwell, with the Hartwell iron concern.—Inglee, B. F. Sturtevant Company, Hyde Park, Mass.—Keables is in a mechanical engineer's office in Lowell.—Marshall, Automatic Refrigerating Company, Hartford, Conn.—

Reeds is with the Cork Seal Company, Millis, Mass.—Spencer is at the Blanchard Machine Company, Cambridge.—Wallis is with the Walker Furnace Company, Boston.—Gilkison is in Provo, Utah, with the Telluride Power Company.—C. J. Belden toured Europe this summer in a Packard, travelling through Italy, Germany, France and Russia, but is back for another year at the Institute.—Phil Young is located in Akron, Ohio, with the Goodyear Rubber Company. Address is 92 Nebraska Street, Akron.—Ben Dow is with Stone & Webster, Columbus, Ga.—Goro Tomonaga is lieutenant commander in the Japanese navy.—Ohnuki is taking some courses at Worcester Polytechnic.—Weeks is with the Morse Twist Drill Company, New Bedford, Mass.—Howard Fisher is with Marks & Woodwell, Park Avenue and 41st Street, New York City.—A. S. Peat's address is 7 Fallon Street, Boston.—Temple is in Fitchburg with the Cowdrey Machine Company, while Thornley is in Pawtucket.—R. H. Nichols is working in Cohasset, Mass., with the War Department on Intra Coastal Canal.

Course III. E. T. Almy, Jr., assistant mining department, M. I. T.—T. B. Black, Vulture Mines, Wickenburg, Ariz.—G. T. Bridgman, Cerro de Pasco, Peru.—A. E. Burt, University Mine, Cobalt, Ontario.—E. P. Chapman, A. S. & R. Co., Pueblo, Col.—M. S. Clark, Orogrande, N.M.—M. J. Daly, Utah Apex Mine, Bingham, Utah.—N. B. Gregory, Zinc Mining, Joplin, Mo.—L. S. Gordon, supposed to be in Utah.—V. C. Grubnau, Velardena, Durango, Mex.—J. C. Hammond, Boston *Transcript*.—F. Jaeger, North American Lead Company, Fredericktown, Mo.—G. A. Joslin, Cobalt, Ont.—L. A. Loomis, Ray Central Mine, Kelvin, Ariz.—P. B. Lord, Velardena, Durango, Mex.—E. M. Loring, Cobalt, Ont.—P. H. Mayer, A. S. & R. Co., Denver, Col.—T. C. Merriman, Coe Brass Company, Torrington, Conn.—G. Miller, Minas del Tajo, Rosario, Sinaloa, Mex.—R. F. Munoz, mining engineer, Saltillo, Coahuila, Mex.—H. R. Putnam, Mammoth Smelter, Kennett, Cal.—R. O. Reed, American Tar Company, Malden, Mass.—W. Reilly, Cobalt, Ont.—B. A. Robinson, Mogul Mining Company, Pluma, So. Dak.—H. Schaffer, 7 Follen Street, Boston, Mass.—H. C. Schriefer, Ray Consolidated Company, Kelvin, Ariz.—F. H. Soderstrom, Mammoth Smelter, Kennett, Cal.—H. J. Stiebel, 408 Judge Building, Salt Lake City, Utah.—T. K. Tse, Vulture Mines, Wickenburg, Ariz.—H. Webb, Ray Central Company, Kelvin, Ariz.—C. Y. Wen, Livingston Hall, Columbia University, N.Y.—C. H. White, Buffalo Smelter, Austin Street, Buffalo, N.Y.

Course IV. T. H. Atherton is in Wilkesbarre, Pa.—W. P. Blodgett, care Guy Lowell, Tremont Building, Boston.—J. C. Bollenbacher,

4123 Drexel Building, Chicago.—H. D. Bonnetheau, H. M. Glazier, A. G. Kellogg, L. H. King, are back at the "Stute," working for their S.M. degree.—C. J. Brown, 1314 East 62d Street, Chicago.—F. A. Burton is with Allen & Collens, 6 Beacon Street, Boston.—K. E. Carpenter, D. W. Phelps, G. F. Shaffer, R. Simmons, are also back at the Institute.—Monte Flagg, 90 Washington Street, Hartford, Conn.—T. G. Machen, 217 West Monument Street, Baltimore, Md.—W. A. Meanor, is in Pittsburg, care Alden & Harlow, Farmer's Bank Building.—A. F. Menke, 4123 Drexel Building, Chicago.—H. E. Myers is with G. W. Carmichael & Co., Hamilton Building, Akron, Ohio.—V. E. Seibert is in Pittsfield, Mass., with McLaughlin & Seibert, architects.—L. Svarz is at 2120 First Avenue, North Seattle, Wash.—Misses Longyear and Thompson are in New York, and Miss Packwood in Tampa, Fla.—Miss Luscomb, Ashford Street, Allston.

Course V. A. K. Comins, Page Belting, Rochester, N.H.—Wiswall made a flying visit from Cleveland to Boston, and dropped in for a few minutes on the secretary. He is with the National Carbon Company, and is supervising the making of brushes for dynamos and generators.—B. D. Dyer is head of the Publicity Department, and there are three other Tech men employed in the same works. Address is National Carbon Company, 11514 Detroit Avenue, Cleveland, Ohio.—H. B. Trevithick was married this summer, and is now with the Southern Cotton Oil Company, Vicksburg, Miss.—M. P. Whipple is with Stevens & Whitman Co. Philadelphia (a confectionery and cocoa concern).—Gadsby's address is 511 College Street, Marietta, Ohio.—Miss Babcock is private assistant to Professor Talbot.

Course VI. C. W. Gammons and H. B. Winterstein are with Stone & Webster.—O'Neill, Interborough Rapid Transit in New York.—Harry Whitaker is with the Boston & Albany Railroad, home address.—Jim Finnie is with the National Electric Lamp Company, and is located in Cleveland.—"Jack" Moses acted as general manager at Chester Pope's hotel during the summer months, but is now travelling on the Pacific Coast for Pettigrew & Andrews Electrical Supply Company.—Altamirano is with the Electropura Company, South America. Address is 2A Edison 45, City of Mexico, Mex.—Fred Green and Mills are at the University of Colorado.—Applin has just passed examinations for the Coast Artillery, and is rated as second lieutenant.—Jones and Winchester are back at the Institute, working for M.S. degrees.—Barnett is in Boston with the Boston Elevated.—Dunnington is in Philadelphia with the Bell Telephone Company.—Porosky is working for the

Holzer Cabot Company, Boston.—Shackney is in Pittsburg with the Westinghouse Electric Manufacturing Company.

Course X. E. Q. Adams is working in the Research Laboratories of the General Electric Company at Schenectady, N.Y.—L. G. Beers is located with the Southern Ferro Concrete in the Equitable Building, Atlanta, Ga.—R. Blankenbuehler is making vanillin, etc., for the Monsanto Chemical Company, St. Louis.—Bradley Dewey is in Vandergrift, Pa., with the American Sheet and Tin Plate Company.—Campbell is working with Badger & Sons, Pitts Street, Boston, and is at the same time carrying on his assistant's duties at the "Stute."—"Walt" King is back at the Institute for another year.—"Chet" Pope intended to return, but decided to remain in the hotel business and make extensive additions to the Cliff House during the winter. He is at present taking a much-needed vacation, travelling through the Western States, as during the summer hotel season one of his colored employees slashed him with a razor so that it was necessary to take fifty-five stitches on his head. It was a close call, and "Chet" was laid up for some time.—C. S. Robinson leaves October 16 for a trip around the world on one of the Clark's tours. He is looking forward to meeting the wild men of Borneo, and expects to shoot big game in India, Java and Ceylon. "Robby" promises to send postals to all the Course X. bunch, and, if any of the fellows wish to correspond with him, letters sent to the secretary will be forwarded to him at once.—And say! What do you know about this? J. N. Stephenson, of cross-country fame, is engaged to be married. We understand the event is scheduled for next June. Good work, "Steve," and congratulations. Stephenson is teaching mathematics and athletics at Lawrenceville Academy, Lawrenceville, N.J., and under his coaching the first requirement of a cross-country man is to learn "We are happy" and the "regular M. I. T."—"Link" Soule is in Akron, Ohio, with the Diamond Rubber Company.—E. E. Wells is in Billerica, Mass., with the Talbot Chemical Company.

Course XIV. (formerly VIII<sub>3</sub>). Jim Critchett's address is 7615½ Saginaw Avenue, Chicago. He is with the Illinois Steel Company.

In order that the fellows may more readily obtain the news they are most interested in, the secretary will endeavor to arrange the news by courses, so that each fellow in looking over the class news in the REVIEW may easily find the addresses and facts about the fellows with whom he was most closely associated while at Tech. There has been no attempt made to give addresses of fellows who have not gone into business, as these can be readily reached through a *Technique* or Senior Portfolio. Any suggestions which will help



the work along will be gladly accepted by the secretary. It is one large job to keep track of over five hundred address cards, and also correspond with some of the fellows who are good enough to write, so, when the work is fairly started and the fellows are permanently located, assistant secretaries will be appointed, having charge of a certain district, thus enabling us to keep in closer touch with all the fellows. What we want is news, and, if the bunch will only stick together and let us have a letter from each and every '09 man, woman, or child, we will have a collection of reading matter worthy of THE TECHNOLOGY REVIEW. Remember, we have the best undergraduate annual, and it is up to us, as alumni, to do our share towards helping the REVIEW. To affiliate with the Alumni Association, send \$2, by check or otherwise, to Walter Humphreys. Any graduate is a member of the Alumni Association, and any fellows who have attended the Institute or have taken special courses may apply for an associate membership. Blanks will be sent on application.—Mr. W. F. Jones has been spending a few days in Boston on his way from Nantucket to California. Mr. Jones was of the Class of '09, and took special work in geology. He left the Institute in June, 1908, to go to California, where he took a special course in geology at the University of California, and did field work on an area in Santa Cruz County. The results of his work have been published in the form of a bulletin. He came East this summer to take up work on the beaches at Nantucket. This work was in the nature of a study of the control of beach sands and of beach formations, and was a continuation of investigations begun by him while a student at the Institute. He has met with results much better than he had expected, and by means of jetties and fences he has been able to develop beaches on the harbor side of Nantucket to the profile which he desired. Just now he is going back to California, where he expects to work in the oil fields this coming winter, and return to the Institute next fall to pursue special work.

After the above was written, the following addresses were obtained:—

Course VI. D. G. Haynes is with the St. Louis and Suburban Railroad.

Course II. Carleton Hubbard is with the firm of Marks & Woodwell, Park Avenue and 41st Street, New York, but is working in Boston.

Course VII. R. N. Hoyt, Metropolitan Sewage Commission, New York.—A. F. Stevenson is working in Tarrytown, N.Y., in the water department.—E. A. Robinson is a student at the Tufts



Divinity School.—Schneider is back for an M.S. degree, and G. T. Palmer is assistant in the Sanitary Research Laboratory.

Course XIII. Shen is back, working for an M.S. degree at the Institute.—Masjoan is somewhere in Argentine Republic.—X. R. Smith is with the Navy Department at Washington.—Harriman is thought to be with a yacht designer in Boston, and Besselievre is probably with the New York Shipbuilding Company.